Chapter 4
Dual State Installation

This chapter contains information applicable to the installation of NOS/VE in a dual state environment. The following installation steps create the dual state procedures that perform bootstrap functions for the NOS/VE installation deadstart and prepare the dual state system for the deadstart of NOS/VE.

Installation of NOS/VE on a dual state system requires that the NOS or NOS/BE operating system already be installed and running. NOS/VE dual state software which matches the NOS/VE level must be installed on the NOS or NOS/BE system. A NOS installation is documented in the NOS Version 2 Installation handbook (60459320) and a NOS/BE installation is described in the NOS/BE Preparation guide (SMD132522).

Following the dual state installation steps is site analyst information.

Step 1: Generate NOS/VE Deadstart Procedure Files

NOS/VE deadstart procedure files are generated using the SETVE dual state procedure.

NOTE

If you already have SETVE procedures for your system, you do not need to recreate them unless you are a NOS/BE dual state site and plan to use a new file identifier for your NOS/VE dual state files.

Deadstart procedure files created by SETVE are executed from the dual state system console. Their purpose is to initiate the NOS/VE deadstart process. You can create more than one deadstart procedure file, each specifying a different set of deadstart options.

Parameters on the SETVE procedure allow you to define whether or not the deadstart process pauses for operator input. For installing and upgrading the system, you must have a deadstart procedure that pauses for operator input. The pause is optional for a continuation deadstart. Create as many deadstart procedures as you need. Initially, you should create two different procedures as indicated below.

The two types are:

- deadstart with operator pause
- deadstart without operator pause

To execute the SETVE procedure from the NOS system console using DSD, use the following format:

```
X.SETVE(parameters)
```

To execute the SETVE procedure from the NOS/BE system console using DSD, use the following format:

```
n.X SETVE(parameters)
```

The parameters are described in the following section.

SETVE Procedure

The SETVE procedure has the following format:

```
SETVE
  PN=procedure_name
  UN=user_name
  P=password
  C=dcfile
  W=operator_pause
  T=deadstart_type
  S=port
  N=cpu_priority (octal)
```

Replace procedure_name with a 1- to 4-character name for your deadstart procedure. These characters will be appended to the name NVE to form the name NVExxxx, where xxxx is the procedure_name. If this parameter is omitted, the procedure file name NVE is used. The default name (NVE) should only be used if you want the NOS/VE subsystem initiated automatically after a NOS deadstart has completed.

Replace user_name with the NOS user name under which the NVE subsystem runs. Termination dumps and job dayfiles are written to the catalog associated with this user name. This parameter is required. For first time installations of NOS/VE and NOS, user name NVE may be used (user name NVE is created automatically by the NOS installation tool SYSGEN for the purpose of running NOS dual state). On NOS/BE, user_name specifies the permanent file identifier under which the procedure file generated is cataloged. This file is attached by the NVE procedure.

Replace password with the password associated with the user name defined by the UN parameter. Omission of this parameter results in a password formed by appending an X to the user name. On NOS/BE, password has no function but is required for compatibility with the NOS SETVE procedure.

The C parameter has been retained for backward compatibility, but is no longer used. Any value entered here is ignored.

Replace operator_pause with one of the following values:

TRUE or T	Deadstart pauses for operator intervention.
FALSE or F	Deadstart does not pause for operator intervention.

The default value for this parameter is FALSE.

The T parameter has been retained for backward compatibility, but is no longer used. Any value entered here is ignored.

Replace port with the number of the port of the two-port multiplexer where the NOS/VE system console resides. If this parameter is omitted, port 0 is assumed. If the dual state partner system was deadstarted using the CC634B or CC598B console, this option is ignored and the same console is used for both the dual state partner and NOS/VE. The options are:

0	Port 0
1	Port 1

Replace cpu_priority with a value between 1 and 70(8). This parameter specifies the CPU priority at which the NVE subsystem will be run on a NOS dual state system. This parameter is ignored on NOS/BE systems. If this parameter is omitted, the NVE subsystem will execute at its initial CPU priority of 74. If the N parameter is specified, the NVE subsystem will execute a SETPR(integer) command to lower its CPU priority.

Remarks

- NOS and NOS/BE restrict the number of input characters to 50. Therefore, to enter all parameters for the SETVE procedure, the parameters may have to be entered positionally, omitting the parameter names. It is also possible to use DIS to enter the statement since it has greater flexibility.

- If you enter the SETVE parameters positionally, be aware that the C and T parameters are still in the parameter list even though the values for these parameters will be ignored.

- On NOS, SETVE creates the procedure as an indirect access file under user name SYSTEMX.

- On NOS/BE, SETVE creates a procedure file as a NOS/BE permanent file with the identifier specified by the UN parameter.

Step 2: Reserve NOS/VE Elements

Reservation of NOS/VE equipment differs depending on the dual state partner. Reference information for NOS systems can be found in the NOS Version 2 Analysis handbook (60459300) and NOS Version 2 Operations handbook (60459310). Reference information for NOS/BE can be found in the NOS/BE Operator's guide (60493900). Additional NOS and NOS/BE information can be found in the SPMM/Vol2.

NOS

You can automatically reserve the NOS/VE equipment and channels using appropriate EQPDECK entries. To do this, specify

```
ST=DOWN
```

on the equipment definition (EQ) entries, and use the

```
DOWN,CH=nn
```

entry to set the channel(s) down. It is recommended that you perform the following steps after deadstart to verify that the NOS defined equipment(s) and channel(s) to be used by NOS/VE have been DOWNed. Enter the following commands on the NOS console:

1. To display the equipment status, enter:

   ```
   E,A.
   ```

2. Enter the following command for all disk and tape units to be used by NOS/VE which do not currently have a DOWN status:

   ```
   DOWN,EQ=est.
   ```

   where est is the octal equipment status table (EST) number of the equipment. EST numbers appear in the first column of the E,A. display.

3. To display the channel status, enter:

   ```
   W,C.
   ```

4. Enter the following command for all disk and tape channels to be used by NOS/VE which do not currently have a DOWN status:

```
DOWN,CH=ch.
```

where ch is an octal channel number.

NOS/BE

Each time you do a level 0 or 1 deadstart on NOS/BE, all tape units and channels to be used by NOS/VE must be made unavailable to NOS/BE. You must also turn off or idle all NOS/VE disk units and channels. The following NOS/BE commands are used to make the required channel and equipment changes.

1. To display the equipment status, enter:

```
E.
```

2. Enter the following commands that apply to your site to DOWN all disk and tape units to be used by NOS/VE which do not currently have a DOWN status:

   - To make a tape unit unavailable to NOS/BE, enter the following command:

     ```
     DWN,UNnn.
     ```

     Replace nn with the equipment status table (EST) ordinal of the tape unit.

   - To make a tape channel unavailable to NOS/BE, enter the following command:

     ```
     DWN,CHcc.
     ```

     Replace cc with the tape channel number.

   - To idle a disk unit, enter the following command:

     ```
     IDLEnnn.
     ```

     Replace nnn with the EST ordinal of the disk unit.

   - To idle and turn off a disk controller, enter the following command:

     ```
     CONTROLLER,nnn,cc,OFF.
     ```

     Replace nnn with the EST ordinal of the disk unit and cc with the channel number.

Step 3: Enable the NVE Subsystem (NOS only)

If you did not specify a control point for the NVE subsystem using an IPRDECK ENABLE or DISABLE command, enter the following commands on the NOS console:

```
SUBSYST.
L.ENABLE,NVE,xx.
L.END
```

where xx represents the control point number assigned to NVE.

These entries can also be used to change the control point assigned to NVE if NVE was previously enabled by an IPRDECK ENABLE command.

Step 4: Install NOS/VE Boot Components

CIP L803 is required for NOS/VE 1.7.1 L803.

After installing CIP L803 to disk, you must load the NOS/VE boot components from the NOS/VE deadstart tape to the disk. This must be done regardless of the type of deadstart that follows: NOS/VE standalone or dual state.

If you installed CIP, but did not load the NOS/VE boot components, a subsequent NOS/VE deadstart attempt (in dual state) will abort and the following message will be issued:

```
NOS/VE BOOT PROGRAMS NOT INSTALLED.
```

Refer to step 1 on page 2-5 of this manual for installation instructions. Note that these instructions describe both the installation of the boot components and a standalone deadstart. Only perform the instructions to the point where the boot components are installed, then perform a NOS deadstart.

Step 5: Deadstart Your Dual State System

NOTE

If you are upgrading dual state only, use the NOS or NOS/BE deadstart tape that you generated in step 2 (see page 7-13) and deadstart the dual state partner.

Initiate a dual state deadstart using the appropriate procedure to initiate a NOS/VE deadstart with pause.

- For dual state with NOS, enter the following NOS console command:

  ```
  NVExxxx.
  ```

  where NVExxxx is the name of the procedure created by the SETVE procedure documented in step 1.

- For dual state with NOS/BE, enter the following NOS/BE console command:

  ```
  n.X.NVE(xxxx,id)
  ```

  where n is a cleared control point, xxxx is the procedure name from the SETVE procedure, and id is an optional permanent file identifier (ID) of the deadstart procedure file.

  After deadstart is initiated, control of NOS/VE is transfered from the NOS or NOS/BE system console to the NOS/VE console, where the deadstart boot display appears.

If you are performing an initial installation, continue your installation with step 2 on page 2-9. If you are performing an upgrade installation, continue your installation with step 4 on page 7-15. In either case, if you wish to deadstart using a 7154 controller, look at the information on page 4-10 for more information before proceeding with your installation.

Site Analyst Information

This section contains dual state information for the site analyst.

Deadstart Using a 7154 Controller

The following information is provided for those sites installing NOS/VE on a configuration using 7154 controllers. Support of the 7154 controller is not documented in NOS/VE manuals. However, the driver for this device is provided in the release materials.

NOTE

Control Data no longer maintains, enhances, or verifies the driver software.

To use a 7154 controller in a NOS/VE system, make the following changes during the dual state deadstart process:

1. Use $7154_1 as the PRODUCT_IDENTIFICATION when defining the element with PCU subcommands.
2. Use $7154_1 when defining the deadstart controller.
3. To configure a 7154/844 subsystem as a system device, the following must be entered when the deadstart boot display appears:
    a. Select 8 to go to the disk subsystem product identification menu.
    b. Type OTHER to go to the 7154/844 menu.
    c. type 1 to select this subsystem, then RETURN to go back to the main menu.

7154 disk subsystem failure data is reported as statistic CM4100 in the engineering log.

NOS/BE Dual State on a 8MB Mainframe

The following message is issued to the dayfile of the NVE subsystem when trying to deadstart NOS/VE on an eight megabyte mainframe with a NOS/BE dual state partner that has PSR NB0E628 (DFT V4 support code) installed:

```
CHOSEN MEMORY WAS LESS THAN NVE MINIMUM
```

Obtain and install PSR NB04786 from SOLVER to correct the problem.

Chapter 5
CYBER 93x Initial Installation

This chapter describes the steps necessary to complete software installation of a CYBER 93x (models 930 and 932) shipped from the factory with NOS/VE 1.7.1 L803. If you are upgrading your CYBER 93x from a previous level of NOS/VE, you should follow the instructions in chapter 7, Upgrade Installation.

The CYBER 93x is shipped from the factory with most of the software you ordered already installed on your mainframe's disk drives. The factory software installation process installed and configured most of the software products that are described in this IHB and most NOS/VE application products. A list of NOS/VE products is in appendix B. A complete list of NOS/VE application products can be found in the Field Availability Summary (FAS) which accompanied the release of NOS/VE materials. Refer to step 4 of this chapter for details on products and applications not installed and only partially configured on your system. All disk and tape peripherals connected to the mainframe have already been configured and are ready to use.

The four installation steps you must perform are:

1. Initiate a NOS/VE deadstart

2. Define the NOS/VE network

3. Configure CDCNET

4. Installation wrapup, including creating user validations, performing miscellaneous configuration tasks, and making a backup copy of your system

You should complete the steps described in this chapter after a Control Data customer engineer has completed setting up the CYBER 93x hardware and has finished system checkout. Shipped with the mainframe are several items which you should obtain from the customer engineer:

- A NOS/VE configured deadstart tape which contains a description of your mainframe peripherals. This tape should be kept and used in the event you need to initialize the disks and re-install or reload all software.

- A paper listing which shows the physical and logical configuration of your mainframe. The listing shows the commands used by NOS/VE to describe your mainframe's peripherals.

- A diagram showing the physical configuration of your mainframe.

- A printout of the SYSTEM OPTIONS and CRITICAL DEVICE CONFIGURATION displays for your mainframe. These displays give information about how the system was set up.

With your system, you also received NOS/VE release product tapes for the software products on your system. These tapes are only required if you must re-install your software. If you do not wish to use the software that Control Data has installed, consult Re-installing Software, page 5-18 for further information.

The following checklist lists the network configuration information you should obtain before you begin performing the steps in this chapter. The abbreviation ICA refers to the Integrated Communications Adapter. If your mainframe has only one ICA, it is connected to channel 0.

Network Access Information

Network Identifier for ICA on channel 0: _____
Network Identifier for ICA on channel 16(10): _____
Both ICAs connected to same Ethernet (yes/no): _____
Host Network Identifier: _____

CDCNET Device Interface Information

System Identifier for the TDI _____

Timesharing titles _____ _____

Step 1: Initiate NOS/VE Deadstart

Because NOS/VE has already been installed on your system, initiate NOS/VE by performing a disk (as opposed to tape) deadstart. If the CYBER 93x was left powered off by the Control Data customer engineer, turn the power on as documented in the CYBER 930 Guide to Operations manual (60469560). Ensure that the console, mainframe, all tape cabinets, and all disk cabinets are also powered on.

1. The CONSOLE MAIN MENU should appear. If it does not, press the ESC key. If the CONSOLE MAIN MENU does not appear, press the CTRL and F2 keys simultaneously.

2. From the CONSOLE MAIN MENU, press L for OS LOAD WITH INTERVENTION.

   The screen will stop at the boot display. Press RETURN to continue with your deadstart.

   A series of messages are displayed. After a few moments, the following message appears:

   ```
   Enter System Core Commands
   ```

3. Enter the SET_TIME_ZONE command as documented in the NOS/VE System Performance and Maintenance Manual, Volume 1 (60463915). For example, Central Standard Time would be represented with the following command:

   ```
   SET_TIME_ZONE -6 0 FALSE
   ```

   You must indicate your time zone (relative to Coordinated Universal Time) and whether you are using standard time or daylight savings time.

4. Disable activation of the network since you do not yet have a network configuration installed. Enter the following command:

   ```
   SET_SYSTEM_ATTRIBUTE NETWORK_ACTIVATION 0
   ```

5. Enter AUTO.

   Wait for the following message to appear.

   ```
   ----- SYSTEM ACTIVATION COMPLETE -----
   ```

Displaying Installed Software

If you wish to see a list of software products that have been installed via the INSTALL_SOFTWARE utility, enter the following commands at the system console:

```
INSTALL_SOFTWARE
  DISPLAY_INSTALLED_SOFTWARE
  QUIT
```

To see a list of NOS/VE application products that have been installed via the INSTALL_APPLICATION utility, enter the following command at the system console:

```
DISPLAY_APPLICATION_SOFTWARE
```

The DISPLAY_INSTALLED_SOFTWARE subcommand is described in the NOS/VE System Performance and Maintenance Manual, Volume 2 (60463925). The DISPLAY_APPLICATION_SOFTWARE command is described in the NOS/VE Application Installation Instructions (SMD131206).

Step 2: Define the NOS/VE Network

This section describes how to define the basic network facilities for your operating system, how to configure a terminal to use as a configuration terminal for completion of NOS/VE installation, and how to configure an ASYNC printer.

The NOS/VE network installation consists of two parts: defining the network configuration and resetting the device interfaces (DIs).

1. Define the Network Configuration

Definition of the network configuration is done with the DEFINE_NETWORK command. From the console, enter the command:

```
DEFINE_NETWORK
```

The following menu is displayed.

```
Define Network

1.  Define the network configuration
2.  Define the CDCNET configuration
3.  Activate the network
4.  Define the Timesharing application

Enter a menu selection, QUIT, or ?:
```

Enter the number 1 to begin defining connections between NOS/VE and CDCNET. When you have defined the connections, the system redisplays the above menu.

Go on to perform menu items 2, 3, and 4, if appropriate for your system. The menu items should be completed in order. If you need help at any point, type in a question mark (?). When you have finished all the menu items appropriate for your system, type QUIT to go on to substep 2, Reset the DIs.

All menus within DEFINE_NETWORK use the same conventions for user responses to menu prompts. They are:

QUIT Terminates the current menu operation and returns to the previous menu. Changes you made to the menu are ignored.

GO Specifies that parameters are to be accepted and an operation is to be performed on those parameters, for example, configuring a DI or installing the network configuration. GO is not displayed for all menus. Pressing the RETURN key is equivalent to entering GO when GO is displayed in the menu prompt.

? Displays help information.

When prompted for a specific parameter value (for example, the network identifier or a timesharing title), you may press the RETURN key to indicate you do not want to supply a value. Then the previous value entered (if any) is retained.

A brief description of the selections on the DEFINE_NETWORK main menu is given below. More complete information is provided in the help text available for each selection. Information for the prompts should be taken from the checklist on page 5-2.

Selection 1: Define the network configuration.

This selection prompts you to define connections between NOS/VE and CDCNET. NOS/VE connects to CDCNET through a channel connection to an MDI or MTI on CYBER mainframes other than the 930 series.

This selection also prompts you to define the host network identifier. The host network identifier is used for routing messages over the OSI protocol stack. You must define a host network identifier for this host, and it must be unique within the CDCNET network that the host is connected.

This selection, when using the option to define the TCP/IP host, also configures NAM/VE to use the TCP/IP Communication Device Support Software. This enables communication with the CDCNET TCP/IP access software to a MDI or ICA-II.

This selection also provides an option to define EXPRESS Link connections if PCU definitions exist for EXPRESS Link.

Selection 2: Define the CDCNET configuration.

If you are connecting into an existing network, you should not choose this menu selection.

For each CDCNET Device Interface (DI) and ICA II you are configuring:

1. Supply the DI type. For a CYBER 93x, your only valid choices are a terminal device interface (TDI) or ICA II.

2. Supply the last six digits of the DI or ICA II system identifier. The DI system identifier is a 12-digit number that is printed on a tag attached to the inside of the DI cabinet. The prompt requires you to enter only the last six digits (the first six digits are always 080025). Please note that the printed tag contains a 4-digit checksum sequence following the 12-digit DI system identifier. The checksum digits should not be included in the 6-digit value requested. The ICA II system identifier is on the tag on the 93x CPU cabinet.

3. Optionally define an ASYNC terminal. For every TDI that is defined, a terminal is automatically defined on LIM 0 PORT 0. This option allows you to define other terminals on other PORTs and LIMs. This capability should be used if your terminal is not connected to LIM 0 PORT 0.

4. Optionally define an ASYNC printer. This allows you to define a line for an ASYNC printer on your TDI.

This creates an initial configuration for each DI and ICA II which allows you to log into NOS/VE from the configuration terminal. If multiple TDIs are connected to the Ethernet, you may define them all at this time or wait until step 3 where you configure your total CDCNET network.

Selection 3: Activate the network.

This selection activates NAM/VE and its associated tasks. No questions are asked.

Selection 4: Define the Timesharing application.

This selection prompts you to supply at least one title which is used to access the NOS/VE system. This is the title users must specify on the CDCNET CREATE_CONNECTION (CREC) command each time they log in. We suggest you define a short and convenient name to use for this purpose. It must be unique within the network because it specifies this mainframe.

2. Reset the DIs

Reset each DI that you defined via the DEFINE_NETWORK command. To reset a DI, open the front panel and reset the toggle switch (pull out and push down) on the main processor board (MPB). The MPB is the first large board from the left side of the cabinet. It takes several minutes to load the DIs. Progress of the load operation is determined by viewing the job log console display. To display the job log, enter:

```
VEDISPLAY DO=JOB_LOG
```

The following message appears during the DI load sequence. This message does not indicate abnormal conditions.

```
--ERROR NA 2120-- DI 080025ssssss reset with reset code 2(16).
```

where 080025ssssss is the system ID of the DI.

Completion of a DI load is indicated by the following messages in the job log:

```
TRIP DELAY  0 SEC, 99 MILLISECOND
CLOCK SYNC SUCCESSFUL
```

These messages must occur for each DI that you defined.

Step 3: Configure CDCNET

This step configures your total CDCNET network.

1. Login to NOS/VE through the configuration terminal.

   a. Press the RETURN key two or three times. After several CDCNET connection messages are displayed, the following message appears:

      ```
      You may enter CDCNET commands
      ```

   b. Enter the CREATE_CONNECTION command:

      ```
      CREC name
      ```

      Replace name with the timesharing title you defined in step 2.

   c. Enter the user name (NVE) and password (NVEX) of the family administrator.

      ```
      Connection $A created.

      Enter validation for service access.
      User:  NVE NVEX
      ```

   Wait for the login process to complete before configuring the remainder of your network.

2. Follow the instructions in part 1 of the tutorial section in the CDCNET Configuration guide (60461550) pertaining to configuring the network. This guide contains information for configuring the basic CDCNET network plus all the following separate CDCNET products:

   - BISYNC_3270_TIP
   - CDCNET_NETWORK_VALIDATIONS (Part of the NETWORK_VALIDATIONS product)
   - CDCNET_TPO_CONS
   - HIGH_SPEED_HDLC
   - MONITOR_TOOLS (Part of the REMOTE_LINE_MONITOR product)
   - MODE4_TIP
   - SERVICE_ACCESS_CONTROL
   - TCP_IP_TIP (Part of the TCP_IP product)
   - TERMINAL_PASSTHROUGH
   - X25_TERMINAL_GATEWAY (X.3 PAD)
   - X29_PAD_SERVER

Proceed to the next step after completing the network configuration.

Step 4: Installation Wrapup

You must perform these installation wrapup activities before your system can be used for production. Other helpful information regarding many of these products can be found in the Installation Default Names and Permissions section on page 5-15 of this chapter.

1. Validate the users who can access the system.

   User validations are created or changed by using the Family Administration menu of Menu/VE. Use the SELFAM command from user name NVE with password NVEX. This menu is described in the CYBER 930 Guide to Operations manual (60469560).

   Change the password of user name NVE in family NVE to some value different from what was shipped with your system. This affects the installation of certain products since NVE is defined as the administrator of several products which require administrators.

2. If you have purchased the Accounting Analysis System product, consult the NOS/VE Accounting Analysis System manual (60463923) for information about preparing the accounting system for use.

3. If you ordered Archive/VE, it has been configured for magnetic tape using the initial installation instructions found in this handbook. If you wish to use a medium other than magnetic tape, or use magnetic tape in conjunction with RMS, or use more than one media for archiving, refer to the installation instructions on page 3-4 for more information.

   Archive/VE has not been configured in a file server environment. If the products Archive/VE and File Server are present on your order, and you wish to perform this configuration, refer to the section Archive/VE with File Server on page 3-8 for details.

4. If you ordered the Cartridge System/VE for 5744 product, refer to Installation chapter of the Cartridge System/VE for 5744 manual (60463928).

5. If you ordered the Cartridge System/VE for 7992 product, refer to Installation chapter of the Cartridge System/VE for 7992 Usage manual (60463927).

6. Desktop/VE has been installed in the factory with release default configuration files. To configure additional products in the Desktop environment, refer to the Desktop/VE Host Utilities manual (60463918) .

   Installation of Desktop/VE requires the definition of a network application to perform server functions for the microcomputer, creation of CDCNET configuration file entries, and tailoring of the Desktop host utilities and tool boxes. The installation steps are described in the Desktop/VE Host Utilities manual (60463918).

7. If you ordered the File Server product, refer to the NOS/VE File Server for STORNET and ESM-II manual (60000190) for details on the configuration of the File Server product.

8. If you ordered the File Transfer, Access, and Management Service (FTAM/VE) product, it has not been configured. Refer to page 3-26 for more information.

9. If you ordered IM/Fast, refer to the IM/Fast for NOS/VE Administration Usage manual (60487513) for details on the preparation of the IM/Fast product. IM/Fast was installed via the INSTALL_SOFTWARE utility. The manual describes the tasks required to prepare IM/Fast for production use.

10. Mail/VE Version 2 has been factory installed. Refer to page 5-15 for more information on the installation defaults used. If any of these default values must be changed, Mail/VE V2 must be reinstalled. Refer to page 3-38 of this handbook for details on its installation.

    You should now create mailboxes in order to use mail.

    If you wish to exchange mail with RFC822 based networks, you must install Mail/VE Gateway. Refer to the section Installation of the Mail/VE Gateway on page 3-40 for instructions on installing Mail/VE Gateway.

    If you wish to install mail with multiple MTAs, you must reinstall mail according to the directions in the section Installation of Multiple MTAs on page 3-43 for instructions on installing Mail/VE with mutiple MTAs on your system.

    For complete details on the configuration, usage, maintenance, and administration of Mail/VE V2, refer to the Mail/VE Version 2 Usage manual (60464514) and Mail/VE Version 2 Administration manual (60464515). Information can also be obtained from the online manual by using the following command:

```
EXPLAIN M=$SYSTEM.MANUALS.MAILVE_V2
```

11. If you ordered the Network File System (NFS) product, update the CDCNET DI configuration files and create the TCP/IP host files. For information on these configuration files, refer to the CDCNET Configuration guide (60461550) and NOS/VE Network Management manual (60463916). Create the EXPORTS and PASSWD file. For information on these files, refer to the CDCNET TCP/IP Program Interfaces and Applications manual (60000214). You must also remove the SCL comment character (") from the beginning of the ACTIVATE_IPC_APPLICATIONS command in the $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file.

12. The Network Information Service (NIS/VE) product has not been installed. Refer to page 3-57 for installation instructions.

13. If you ordered Network Lock Manager (NLM/VE) it has been installed for you. You must remove the comment character (') from the ACTIVATE_NLM command in the file $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG.

14. If you ordered the Network Transfer Facility (NTF) product, you must create the NTF system list. The Network Transfer Facility Usage manual (60000628) contains information on creating the NTF system list.

    The subproduct Dynamic Remote Job Entry (DRJE), which is packaged with NTF, has not been installed. Refer to page 3-64 for installation information.

15. Network Validation has not been installed. Refer to page 3-66 for installation instructions.

16. The Optical Storage System product which is included with NOS/VE has not been installed. If you wish to use this product, refer to page 3-67 for installation instructions.

17. The ORACLE product has not been installed. Refer to the Installing the ORACLE Product chapter of the ORACLE for NOS/VE Installation and User's guide (60488014) for installation instructions. Note that you do not need to load the packing list since this has already been done for you.

18. If you have ordered PTF/QTF, you must validate users for PTF usage. The PTF server executes in the FILE_TRANSFER job class and users must be validated for this job class in order to use PTF. Users must also be validated to use the EXPLICIT_REMOTE_FILE and IMPLICIT_REMOTE_FILE reference capabilities. Use the ADMINISTER_VALIDATIONS (ADMV) utility to create additional user validations. ADMV is described in the NOS/VE User Validation manual (60464513).

19. If you have ordered Remote Line Monitor (RLM) it has been installed for you. However, if you desire more security, refer to the section entitled Security on page 3-79. Refer to the section entitled Usage on page 3-78 for information on using RLM.

20. If you have ordered RHFAM/VE, you must create an RHFAM configuration file and define your network access device (NAD) in your NOS/VE physical configuration files. Consult the NOS/VE LCN Configuration and Network Management manual (60463917) and the NOS/VE System Performance and Maintenance Manual, Volume 1 (60463915) for details.

    You must also remove the SCL comment character (') from the beginning of the ACTIVATE_RHFAM and DEFINE_xxx_FOR_RHFAM commands in the $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file.

    The product Removable Media Management System (RMS) has not been installed. Refer to the Installation, Configuration, and Initialization chapter of the NOS/VE Removable Media Management System Usage manual (60463947) for installation instructions.

21. If you ordered the TCP/IP product, follow the installation instructions on page 3-82. THE ACTIVATE_INETD, ACTIVATE_SMTP, and ACTIVATE_PORTMAP commands have already been added to the $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file. You must remove the SCL comment character (") from the beginning of the ACTIVATE_SMTP and ACTIVATE_INETD commands in the $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file. If you wish to use the Remote Procedure Call/External Data Representation (RPC/XDR) interface and have NOT ordered NFS, you must also remove the comment character from the beginning of the ACTIVATE_PORTMAP command.

    If you wish to allow TCP/IP applications on NOS/VE to communicate with distributed Domain Name Servers in order to obtain information about other hosts in the TCP/IP network, you should perform the instructions in the section Define the NOS/VE Domain Name Resolver on page 3-87.

22. If you ordered VX/VE, you must validate users to use it. To perform this validation, refer to the validation of VX/VE Users section on page 3-90 of this handbook.

23. If you ordered X/Windows, the C-Socket client must be defined under the MANAGE_APPLICATION_DEFINITIONS utility.

24. If you ordered the X.400 Transfer Facility (XTF) product, it has not been configured. Before configuring this product, you must provide a path through CDCNET that supports the OSI protocol stack. Refer to page 3-93 of this handbook for more information.

25. If you ordered any of the following application products, they have not been installed on your system. You should install these applications now.

    ANSYS Products
    Distributed File Server
    Graphics Performance Monitor
    ICEM MCAD Products
    N.2
    SCICONIC
    UNIBOL

    Refer to the appropriate system release bulletin included with your software shipment for details on the installation of each of the above products.

26. If you ordered the OFFICEWARE application product, the installation process is not complete. Refer to the Officeware System Release Bulletin (SMD131784), Section 4.0. Steps 1-10 have been completed in the factory. To complete the installation, perform steps 11-13.

27. If you are installing the CYBER 93x in a multi-host network, read the Installation in a Multi-Host Environment section on page 5-17.

28. Back up permanent files.

    You should create a tape backup of all your permanent files once you have completed all the installation steps for your system. The process for backing up files is described in the CYBER 930 Guide to Operations manual (60469560).

29. Fill out the Software Installation Quality Program questionnaire shipped with your software order and return it to Control Data at the address provided.

Installation Information

The following section describes additional information important for your site.

Installation Default Names and Permissions

This section describes the default user names, permissions and other product specific information that apply to your system. Note that not all items may apply to your site, but only those that pertain to the products your site has ordered. Keep this information for future reference.

- The name of the default NOS/VE family is NVE. The family administrator user name is NVE and the password is NVEX. From this user name you can use the Family Administration menu (SELFAM) or the ADMINISTER_VALIDATIONS (ADMV) utility to change and create user validations. ADMV is documented in the NOS/VE User Validation manual (60464513). SELFAM is described in the CYBER 930 Guide to Operations manual (60469560).

  The NVE user is validated to:

  - perform network application management
  - perform network operations
  - operate stations
  - administrate scheduling
  - maintain CDCNET configuration files
  - maintain NOS/VE configuration files
  - perform Mail/VE V2 administrator functions
  - be the administror user name for Remote Line Monitor

- The packing list name is R171_L803.

- The Mail/VE V2 system administrator user name is NVE.

  - The MAILVE_ADMINISTRATION validation field of the administrator is set to ANALYST.
  - The message transfer agent (MTA) name is MTACY930.
  - The X.400 Private Domain name is PDCY930.
  - The X.400 Administrative Domain name is ADCY930.
  - The X.400 Country code is US.
  - The job class that Mail/VE V2 is activated at is BATCH.

- The name of the logical configuration prolog defined in the prolog library is CY930_sssss_CP, where sssss is the 5 digit serial number of the CYBER 93x (serial number is zero filled).

- The VX/VE administrator user name is NVE.

- The C/VE administrator user name is NVE.
- The DWB/VX administrator user name is NVE.
- The default login family for timesharing and batch users is NVE.
- User name NVE has been granted permission to update the CDCNET configuration files in the $SYSTEM.CDCNET.SITE_CONTROLLED and $SYSTEM.CDCNET.VERSION_INDEPENDENT catalogs. It is from this user name that you maintain CDCNET configurations.
- User name NVE has been granted permission to access the files and catalogs necessary to maintain your NOS/VE deadstart tape configuration (that is, the configuration which describes your mainframe's peripheral equipment). The $SYSTEM.SITE_OS_MAINTENANCE.DEADSTART_COMMANDS catalog contains the two files PHYSICAL_CONFIG and PROLOG_LIBRARY which contain the actual configurations.
- The default control facility name for managing output print files is STATION_CONTROLLER_1. For more information, consult the NOS/VE Network Management manual (60463916) and the CDCNET Batch Device User guide (60463863).
- The PTF/QTF product is installed, defined, and activated. The QTF HOST_PHYSICAL_IDENTIFIER is C93. PTF/QTF uses the job and service class FILE_TRANSFER.
- The default station name for print files is AUTOMATIC.
- The RHFAM/VE product is automatically installed and defined.
- MENU/VE is enabled for all users.
- If you chose to define an asynchronous printer in step 2, the resultant terminal definition procedure (TDP) is named PRINTER_WITHOUT_VFU.
- The Batch Input/Output application has been defined and activated. A unique application name of OSA$STATUS_CONTROL_FAC_SERVER is defined for SCFS.
- The Network File System applications have been defined. The spool catalog has been defined as :NVE.NVE.SPOOL.
- The Network Transfer Facility application has been defined and activated.
- TCP/IP host applications FTP, INETD, and SMTP have been defined.

Installation in a Multi-Host Environment

A multi-host environment is one in which more than one host mainframe is connected to a CDCNET network. In this environment, you must alter some of the installation steps.

The $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file is executed every time the network software is activated. This file contains commands for activating network related applications and system tasks. The released version of the file activates network logging, file access, DI loading, network master clock, and batch output tasks SCF and SCFS. If your system contains any optional products which must be activated (such as PTF/QTF or RHF), commands to activate them have also been placed in this file. The control facility name for SCFS is STATION_CONTROLLER_1. In a multi-host environment, you may wish to alter the network activation epilog file, in light of the following considerations:

- The network clock should run on only one mainframe in the network. If you do not want the network clock to run on the mainframe you are installing, remove the ACTIVATE_NETWORK_CLOCK command from the network startup file.

- You may need to change the control facility name for SCFS. In a multi-host environment, each host should use a unique name for the control facility. To change the name, deactivate SCFS and delete its application definition; then redefine and activate it. The commands used in this process are described in the NOS/VE Network Management manual (60463916).

NOTE

The family name must be unique among family names on the system. If the family name NVE is not appropriate, change it by following the instructions in the Permanent File Maintenance chapter of the SPMM/Vol2. For sites installing the Permanent File / Queue File Transfer (PTF/QTF) facility, family should also be unique among the family names for all linked systems.

The following names cannot be used as a NOS/VE family name if you are using C/VE or VX/VE:

BIN, DEV, ETC, FRL, INSTALL, IPC, LIB, MAINTENANCE, TMP, USR, VX.

VX and C first check the file name /xxx to determine if it is a valid family name. If it is not, VX and C assume it exists in the root directory.

Reinstalling Software

The instructions in this section should only be performed if you need to reinstall all your NOS/VE software.

If you have a full permanent file backup of your system, you should use those tapes to restore all of your files as documented in the NOS/VE Operations manual (60463914) instead of doing a re-installation.

To reinstall the software, use the configured deadstart tape sent with your mainframe and the NOS/VE release tapes. The process you follow is basically the same as that documented in chapter 2. However, it is significantly easier because you can start with the configured deadstart tape.

To reinstall the NOS/VE system, perform the major steps 1 through 7 and 12 through 18 in chapter 2.

The following notes reference the steps in chapter 2:

1. Step 1 performs a deadstart with operator intervention. Perform a deadstart by selecting OS LOAD WITH INTERVENTION from the CONSOLE MAIN MENU.

2. In step 2, the deadstart device is the 9639 tape unit on channel 4, equipment 0, unit 0. The system device is the 9836 disk unit on channel 1, equipment 0, unit 0.

3. In step 3, specify DISK00 for the volume_name parameter of the INITIALIZE_SYSTEM_DEVICE command.

4. You will not be prompted to perform step 4.

5. Perform steps 5 and 6 as documented.

6. To define the network, perform the instructions in step 2 of this chapter instead of step 7 in the Initial Installation chapter.

7. You may skip steps 8 through 11 since you have a configured deadstart tape. You may wish to perform step 8 and log in to ensure you can access NOS/VE from your terminal.

8. Perform step 12 as documented.

9. The purpose of step 13 is to redeadstart the system and set it up for a deadstart from disk without operator pause. Do this by terminating the system as documented and perform a deadstart by selecting OS LOAD WITH INTERVENTION from the CONSOLE MAIN MENU. When the boot screens appear, change the OS LOCATION to DISK.

10. The remainder of the steps in chapter 2 should be completed as documented.

Chapter 6
CYBER 2000 Initial Installation

This chapter describes the initial installation steps of NOS/VE 1.7.1 L803 for CYBER 2000 mainframes. You will later be referred back to chapter 2 to complete your initial installation.

Initial contact with the CYBER 2000 will always be through the service processor menus. The service processor hardware is located within the CYBER 2000 mainframe cabinet. We recommend that you complete the installation of NOS/VE before you make changes to the service processor environment.

The CIP L803 SRB contains information specific to this release of CIP. The CYBER 2000 System Console User Interface/CYBER Initialization Package (CIP) Reference manual (60000539) contains information about the service processor environment. NOS/VE configuration information relevant to the CIP device can be found in the Physical Configuration chapter of the NOS/VE System Performance and Maintenance Manual, Volume 2 (60463925), hereafter referred to as SPMM/Vol2. The NOS/VE System Performance and Maintenance Manual, Volume 1 (60463915) is referred to as SPMM/Vol1.

NOTE

CIP has been loaded into partition 1 of the service processor. The following instructions assume that you will use this CIP for your environment.

NOTE

You must know how to login to the service processor user sysadm in order to complete this installation.

Instructions in this chapter assume that CIP L803 has been properly installed. CIP installation instructions are contained in the CIP manual specific to your mainframe.

After CIP L803 has been installed properly, you can install the NOS/VE 1.7.1 L803 boot components by performing the following procedure.

Step 1: Initiate NOS/VE Deadstart

1. Login to the service processor user sysadm. The Main Menu will be displayed.

```
---------------Main Menu --------------------------
Load O/S Automatically
Allow O/S Load Intervention
Operations Options
Maintenance
Remote Operations
Control System Power
Service Processor Installation
Logoff Service Processor
-----------------------------------------------------
```

2. Load the NOS/VE boot with the following steps:

   a. Mount the NOS/VE 1.7.1 L803 deadstart tape.

   b. Return to the Main Menu by pressing the CTRL and F8 keys simultaneously. If the Main Menu does not come up, press 1.

   c. From the MAIN MENU, select the OPERATIONS OPTIONS menu by pressing:

      O

   d. From the OPERATIONS OPTIONS menu, select the ADMINISTRATION UTILITIES menu by pressing:

      A

   e. From the ADMINISTRATION UTILITIES menu, select the NOS/VE BOOT UTILITIES menu by pressing:

      V

f. From the NOS/VE BOOT UTILITIES menu, select the INSTALL NOS/VE BOOT option by selecting:

```
I
```

The system will now allow changes to be made to the location of the boot tape. Make any changes that you wish and then select either

```
F3  (Save and Exit)
```

or

```
ESC
```

The installation of the boot pieces will now occur. Several messages will appear on the screen showing the state of loading the pieces.

Upon completion, an INSTALLATION COMPLETE message appears.

g. Bring up the MAIN MENU by pressing the CTRL and F8 keys simultaneously and then entering 1.

3. Verify memory settings.

From the Main Menu, select Operations Options by pressing:

```
O
```

From the Operations Options, select Configuration Utility by pressing:

```
C
```

From the Configurations Options, select Memory Configuration by pressing:

```
M
```

The memory size is displayed on the second page . If the memory size is greater than 256MB, a page size of 4K is not allowed. You must use 8K page size if you are using the Disk Array Subsystem in parallel mode.

Press F3 to save the settings.

Press ESC to return to the Operations Options.

4. Force the initialization of Central Memory. This ensures that the machine is in the correct state to load NOS/VE. DO NOT repeat this step on subsequent deadstarts. To do this, select Initialize Options from the Operations Options menu by pressing:

```
I
```

From the Initialization Options menu, toggle the value for Central Memory Initialize to ON by pressing the space bar. Press F3 to save. Unlike other values on this display, this value will not be retained for subsequent deadstarts. Press 1 to return to the Main Menu.

5. From the MAIN MENU, select ALLOW O/S LOAD INTERVENTION by selecting:

   A

   Operator intervention allows mainframe component reconfiguration. For specific information regarding operator intervention options, refer to subsequent displays for deadstart options.

Step 2: Set the Deadstart Parameters

Information entered in the boot display is saved across deadstarts. Define the boot display fields as follows:

Field	Entry
1	Specify TAPE.
2	Specify TRUE.
3	Specify DCF01.
4 through 8	Describe the deadstart tape device.
9 through 13	Describe the system disk device.

A parameter value may be entered in octal or hexadecimal by including the base in parentheses. If you do not specify a base, decimal is the base assumed.

See the Physical Configuration Utility chapter in the SPMM/Vol2 about defining values for a particular device.

After you enter the display information in this manner, press the NEXT key to continue with the deadstart.

The following page shows a sample deadstart boot display.

```
                                NOS/VE

      Copyright Control Data 1983, 1992

          Deadstart and System Device Configuration Selections
1. OS Location.......................... Tape
2. Deadstart pause for operator input ... True
3. DCFILE name ......................... DCF01

Deadstart Device                        System Device

4. IOU ................. 0(10)          9. IOU ................. 0(10)
5. Channel ............. CH26          10. Channel ............. CH2
6. Controller and ..... $7021_32       11. Controller and ..... $7155_12
     Storage Device .... $679_7              Storage Device .... $885_12
7. Equipment Number .... 0(10)         12. Equipment Number .... 0(10)
8. Unit Number ......... 0(10)         13. Unit Number ......... 32(10)


                  NOS/VE Deadstart Command Processor.
Enter a menu number to change a value or
Press NEXT to accept parameters and continue the deadstart process
```

To enter or change a value in the boot display, first enter the number (from 1 to 13) of the display field. The prompt line at the bottom of the display describes the options that can be specified for that field.

Step 3: Enter System Core Commands

```
Enter system core commands:

SET_TIME_ZONE hours minutes daylight
INITIALIZE_SYSTEM_DEVICE volume_name
SET_SYSTEM_ATTRIBUTE NETWORK_ACTIVATION 0
SET_INSTALLATION_TAPE packing_list 'evsn',,type
  .
  .  any desired SET_SYSTEM_ATTRIBUTE commands
  .
AUTO
```

Replace hours, minutes, and daylight with appropriate values for the SET_TIME_ZONE command as documented in the System Core Commands chapter of the SPMM/Vol2. For example, to represent Central Standard Time, enter SET_TIME_ZONE -6 0 NO.

Replace volume_name with a 1- to 6-character name which represents the name of your system device.

Replace packing_list with any 1- to 16-character SCL name for the file where the packing list file should be stored. This file name is used on subsequent INSTALL_PRODUCT commands.

Replace evsn with the 1- to 6-character external VSN of the first installation tape. The VSN for the tape can be found in the media number field of the external tape label. Even if your order contains multiple tapes, it is only necessary to supply the VSN of the first tape. The first installation tape contains the words FULL/PACKING LIST in the name field of the external tape label. (Any additional tailored product tapes contain the words FULL/ADDITIONAL in the name field of the external tape label.)

Replace type with one of the following keyword values:

MT9$6250	(for orders written on 9-track tape at 6250 cpi)
MT9$1600	(for orders written on 9-track tape at 1600 cpi)
MT18$38000	(for orders written on cartridge tape)

You can change the setting of system attributes with the SET_SYSTEM_ATTRIBUTES system core command. System attributes are described in the Adjusting System Attributes chapter of the SPMM/Vol1. System core commands are described in the System Core Commands chapter of the SPMM/Vol2.

The system proceeds to read the deadstart tape and displays messages on the console.

The system completes processing the system core commands and displays the Physical Configuration Utility (PCU) prompt described in step 4 of chapter 2.

Continue the initial installation process by executing the steps in chapter two beginning with step 4 on page 2-13.

Chapter 7
Upgrade Installation

This chapter describes upgrading to NOS/VE 1.7.1 L803 from NOS/VE 1.5.3 L765, and NOS/VE 1.6.1 L780. The released CDCNET version level is 9999 (CDCNET 1.7.1 L803).

If you are currently at a level prior to NOS/VE 1.6.1 L780 and wish to upgrade to NOS/VE 1.7.1 L803, you must first upgrade to a NOS/VE release that is within the support window and then follow the instructions in this manual to upgrade to NOS/VE 1.7.1 L803.

The releases within the support window for this release are:

- NOS/VE 1.6.1 L780

Refer to the Installation Handbook for the level to which you are upgrading for more information.

Level 780 BCU Corrections in NOS/VE 1.7.1 L803

NOS/VE 1.7.1 L803 contains all the corrections in the L780AD Batch Corrective Update.

Installation Changes between L780 and L803

Some Public Access Modes Altered

Public access modes have been altered on some NOS/VE files. This was done to enhance the security of our system. This change in public access modes will not affect any private user permissions you have set up at your site.

RMS Installation Changes

In previous releases, it was necessary to execute the command ESTABLISH_RMS to complete the RMS installation. The RMS installation procedures have been changed and now RMS will install automatically during step 9.

If the site-modifiable SCL procedures have been tailored for the site, the RMS install procedure now expects to find the site command library on the file :$SYSTEM.$SYSTEM.RMS.SITE_COMMAND_LIBRARY. If this object file does not exist, the released version of the RSF$COMMAND_LIBRARY will be installed.

This release of RMS also eliminates three procedures which formerly resided on the RSF$COMMAND_LIBRARY.

The procedures eliminated are:

```
CREATE_RMS_FILES
ESTABLISH_RMS
INSTALL_RMS
```

For information regarding the creation and initialization of the removable media library (RML), refer to the Initialization Chapter of the NOS/VE Removable Media Management System Usage manual (60463947).

NOTE

If you are installing RMS in a clustered mainframe environment, be sure to read the appropriate section of the aforementioned chapter before you begin the installation process.

X/Windows Added to TCP/IP

The subproduct X_WINDOWS_PRODUCTION_ENVIRONMENT subproduct is now part of the TCP_IP product. The MOTIF and EZVIEW portions of X_WINDOWS remain a separately licensed product called X_WINDOWS.

Mail/VE V2 Incompatible with Previous Versions

Mail/VE Version 2 at NOS/VE 1.7.1 L803 is incompatible with previous versions of Mail/VE. The installation process is described in the Special Product UPGRADE Installation Tasks chapter.

Mass Storage Class P

With this release of NOS/VE, product files that are not system critical are installed to mass storage class P instead of mass storage class M. At least one volume in the system set must be assigned to class P. Since files of products are more frequently used, you can assign class P to several volumes in the system set to avoid disk access bottlenecks. Having product files go

to class P allows you to separate them from volumes with user permanent files and also allows you to control the residence of your frequently used products for performance tuning. Moving product files to class P ensures $SYSTEM files assigned to class M will not be backed up when sites backup user permanent files by volume.

Loading Documentation Files on Current System

You can optionally load the following documentation files from the tailored product tapes to your current system. You can then examine the files and print hard copy versions.

```
INSTALLATION_HANDBOOK
SOFTWARE_RELEASE_BULLETIN
CREATE_SRB_ONLINE_MANUAL
PSR_REPORT
SITE_ANALYST_EXAMPLES
EXAMPLES_FILES.SITE_ANALYST_SOURCE_LIBRARY
```

Perform the following instructions to load the documentation files onto your system:

```
INSTALL_SOFTWARE
  LOAD_PACKING_LIST PL=packing_list EVSN='evsn' TYPE=type
  INSTALL_PRODUCT PL=packing_list P=PRE_INSTALL_SW ..
    SPC=save_previous_cycles
  QUIT
```

Replace packing_list with any 1- to 16-character SCL name for the packing list. This name is used on subsequent INSTALL_PRODUCT commands so it is best to make the name something easy to remember. For example, a good packing list name for the NOS/VE 1.7.1 L803 release would be L803.

Replace evsn with the 1- to 6-character external VSN of your first installation tape. The VSN for the tape can be found in the media number field of the external tape label. The first installation tape contains the words FULL/PACKING LIST in the name field of the external tape label. Any additional tailored product tapes contain the word FULL/ADDITIONAL in the name field of the external tape label.

Replace type with one of the following keyword values:

```
MT9$6250     (for 9-track tape at 6250 cpi)
MT9$1600     (for 9-track tape at 1600 cpi)
MT18$38000   (for cartridge tape)
```

Replace unload_volume with the value of FALSE if you do not want your installation tape to unload after the packing list is loaded. This value defaults to TRUE.

Replace save_previous_cycles with the value TRUE if you wish to save your older documentation files. If you later wish to retrieve your older versions of any of these documentation files, change the cycle number for the highest cycle of that file to be something lower. This value defaults to FALSE.

PSR Summary Report

File $SYSTEM.DOCUMENTATION.PSR_REPORT is a report including all the PSR numbers, submitter reference number, origin site code, origin operating system level, and the seventy character problem description of the PSRs closed in the NOS/VE 1.7.1 L803 release. The file size is approximately 4 kilobytes.

Software Release Bulletin (SRB)

File $SYSTEM.DOCUMENTATION.SOFTWARE_RELEASE_BULLETIN is a listable formatted file. It can be routed for printing on any NOS/VE printer via the PRINT_FILE command. The file size is approximately 331 kilobytes.

Installation Handbook (IHB)

File $SYSTEM.DOCUMENTATION.INSTALLATION_HANDBOOK is a listable formatted file. It can be routed for printing on any NOS/VE printer via the PRINT_FILE command. The file size is approximately 913 kilobytes.

Creating the SRB Online Manual

Perform the following tasks to make the online manual version of the SRB accessible by the HELP command.

1. Enter the following at the system console:

```
$SYSTEM.DOCUMENTATION.CREATE_SRB_ONLINE_MANUAL
```

   This creates the file OLM in the current working catalog. File OLM contains the SRB online manual.

2. Copy the online manual to the catalog $SYSTEM.MANUALS:

```
COPY_FILE I=OLM O=$SYSTEM.MANUALS.SRB.$NEXT
```

3. Permit user access to the online manual with the following command:

```
CREATE_FILE_PERMIT F=$SYSTEM.MANUALS.SRB G=PUBLIC
```

Users may now access the SRB by entering the following command:

```
HELP M=SRB
```

Site Analyst Examples Manual

An online manual of site analyst examples is available. This manual works just like the online EXAMPLES manual. The examples in the site analyst manual illustrate installation, configuration, permanent file maintenance, and network management topics.

Two files are used for this manual: $SYSTEM.MANUALS.SITE_ANALYST_EXAMPLES and $SYSTEM.MANUALS.EXAMPLES_FILES.SITE_ANALYST_SOURCE_LIBRARY. The approximate sizes of the files are 84 kilobytes and 418 kilobytes, respectively.

To access the manual, a user must have been granted read and execute permission to access the two files. Enter the following commands from the system console:

```
CREATE_FILE_PERMIT F=$SYSTEM.MANUALS.SITE_ANALYST_EXAMPLES G=PUBLIC
CREATE_FILE_PERMIT ..
  F=$SYSTEM.MANUALS.EXAMPLES_FILES.SITE_ANALYST_SOURCE_LIBRARY ..
  G=PUBLIC
```

Once permission is granted, the manual can be accessed by entering:

```
HELP M=SITE_ANALYST_EXAMPLES
```

Step 1: Prepare for the Upgrade

This first step of the upgrade to NOS/VE 1.7.1 L803 is performed while running your current NOS/VE system.

Validate One User Name for Release Tapes

If you plan on using your release tapes any time after upgrading your system or if you plan to implement the tape security feature, you should validate at least one user for RELEASE_TAPES. To do this, you must enter the following commands from the system console:

```
SYSTEM_OPERATOR_UTILITY
  ADMINISTER_VALIDATIONS
    USE_VALIDATION_FILE F=:family.$SYSTEM.$VALIDATIONS
    CHANGE_USER U=user
      CHANGE_REMOVABLE_MEDIA_ACCESS ADD=((RELEASE_TAPES (READ)))
      QUIT
    QUIT
```

Replace family with your default family name.

Replace user with the user name you wish to validate for release tapes.

If you wish to create secure deadstart tapes in the future, validate the user who will create the deadstart tapes for (ALL) in the above example rather than READ.

Verify Deadstart Command Files

Verify that the deadstart command files you add to the tape are correct before you deadstart NOS/VE 1.7.1 L803. This allows you to prepare the files while you can access the system from a network terminal.

You will create your configured deadstart tape during step 6.

1. Log into the user name on your current system that has permission to access the files in the $SYSTEM.SITE_OS_MAINTENANCE catalog. This permission must be at least READ, CYCLE, and CONTROL.

2. Ensure that your current physical configuration is described in a file in the $SYSTEM.SITE_OS_MAINTENANCE.DEADSTART_COMMANDS catalog. The physical configuration should be stored in a file named PHYSICAL_CONFIG.

3. Ensure that your current DCFILE is contained in the file $SYSTEM.SITE_OS_MAINTENANCE.DEADSTART_COMMANDS.DCFILE. If the file is not present and you have not modified the released DCFILE (DCF01), you do not need to create file DCFILE. A copy is automatically retrieved from the NOSVE_MAINTENANCE subcatalog.

4. Ensure that your current configuration prologs are described in a file in the $SYSTEM.SITE_OS_MAINTENANCE.DEADSTART_COMMANDS catalog. The file containing the prologs is an object library file named PROLOG_LIBRARY.

Backup IM/BASISplus Files

Perform the following steps to back up your IM/BASISplus files.

NOTE

If you are migrating from IM/DM to IM/BASISplus, you should skip the following section.

---

1. Shut down all kernels.

   Before beginning the upgrade, have all IM/BASISplus users log out, then close down all kernels.

2. Back up the authority database.

   The installation process deletes all IM/BASISplus files residing on the DMROOT subcatalogs. Before you install the latest upgrade of IM/BASISplus, back up your authority database and your backup authority database.

NOTE

Back up the authority database if you will need it later since the installation process deletes it.

To back up your authority database, log in to DMROOT and use the BACKUP/ADB command in DMSA. Back up the authority database to .DMROOT. For example, you could follow these steps to back up an authority database and its backup authority database:

```
DMSA UID=SAUID UPW=SAUPW AIDS=NO
  BACKUP/ADB OLD='.DMROOT.RELL1.DM.RUNDMK.SYSA_DM' +
    NEW='.DMROOT.SYSA_DM'
  BACKUP/ADB OLD='.DMROOT.RELL1.DM.RUNDMK.SYSABAK_DM' +
    NEW='.DMROOT.SYSABAK_DM'
  EXIT
```

3. Back up alternate kernel set catalogs.

   If your site runs kernels in catalogs other than RUNDMK, back up the kernel set catalogs to DMROOT. All subcatalogs of catalog RELL1 are erased during the installation process, including any kernel set catalogs created after the previous installation. You can back up the kernel set catalogs by using the NOS/VE BACKUP_PERMANENT_FILE utility. For example, to back up the kernel set catalog RUNDMKB to the DMROOT catalog, you could enter the following commands:

```
BACKUP_PERMANENT_FILE BF=.DMROOT.RUNDMKB ..
  LIST=$LOCAL.LIST
  BACKUP_CATALOG C=.DMROOT.RELL1.DM.RUNDMKB
  QUIT
```

   For more information about BACKUP_PERMANENT_FILE, see the NOS/VE System Usage manual (60464014) .

4. Back up the global database directory and the kernel directory.

   Do this step only if you run DMNAM or IM/DM STORNET. Since the installation process deletes the global database directory (GDD) and the kernel directory (KD), back them up to the DMROOT catalog. The file path of the GDD is .DMROOT.RELL1.DM.DMGDD1_GDF. The file path of the KD is .DMROOT.RELL1.DM.DMKD1_KDF. To back them up to DMROOT, you could enter the following commands:

```
COPY_FILE I=.DMROOT.RELL1.DM.DMGDD1_GDF O=.DMROOT.DMGDD1_GDF
COPY_FILE I=.DMROOT.RELL1.DM.DMKD1_KDF O=.DMROOT.DMKD1_KDF
```

5. Back up other files containing site-specific tailoring.

   Do this step only if your site has made site-specific changes to the setdmsite_com, memory-based recovery, or vocabulary files. To back up the setdmsite_com files, you could enter the following:

```
COPY_FILE I=.DMROOT.RELL1.DM.SETDMSITE_COM O=.DMROOT.SETDMSITE_COM
```

   To back up the nine memory-based recovery files, you could enter the following commands:

```
COPY_FILE ..
  I=.DMROOT.RELL1.DM.RUNDMK.MEMORY_BASED_RECOVERY_SETUP_O1 ..
  O=.DMROOT.MBRS_O1
COPY_FILE ..
  I=.DMROOT.RELL1.DM.RUNDMK.MEMORY_BASED_RECOVERY_SETUP_O2 ..
  O=.DMROOT.MBRS_O2
   .
   .
COPY_FILE ..
  I=.DMROOT.RELL1.DM.RUNDMK.MEMORY_BASED_RECOVERY_SETUP_O9 ..
  O=.DMROOT.MBRS_O9
```

A new copy of the vocabulary file is included with every release of IM/BASISplus. By default, the file is named .DMROOT.RELL1.DM.DMVOC_VF. If your site has changed the vocabulary file using the DMVP utility, be sure to save a copy of the source file. The source file contains all changes and directives, and is used to restore the vocabulary file in step 12.

For example, you could move source changes to a file in DMROOT such as .DMROOT.DMVOC_SRC.

6. Delete the current IM/BASISplus binaries.

   Delete all IM/BASISplus binaries before installing the upgrade. This assures that the installation process will correctly set all file permissions on the newly installed files.

NOTE

Check that there are no other files stored in the .DMROOT.RELL1 subcatalog other than the IM/BASISplus binaries, because all files in that subcatalog will be deleted.

To delete the binaries, type the following at the system console:

```
TASK R=4
  DELETE_CATALOG :family.DMROOT.RELL1 DO=CAC
  TASKEND
```

Replace family is the name of the family that contains DMROOT.

Prepare Mail/VE Version 2 for Upgrade

1. Generate a set of Mail/VE directory update directives (DUDs) by executing the following commands from the system console:

```
MANAGE_MAIL_DIRECTORY   MTA=mta_name
  GENERATE_DIRECTORY_UPDATE OUTPUT=directives_file_name
QUIT FALSE
```

   Replace mta_name with your site's mta_name. This parameter is optional.

   Replace directives_file_name with the name of a permanent file that will contain the DUDs.

2. Disable automatic activation of the Mail/VE MTA server and gateway during deadstart. The recommended method for activating the MTA server and gateway is to include the ACTIVATE_MAILVE and ACTIVATE_MAIL_GATEWAY commands in $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG. Use the editor to temporarily change these commands to SCL comments (prefix the command with ").

3. Use the DEACTIVATE_MAILVE and DEACTIVATE_MAIL_GATEWAY commands to idle Mail/VE.

Back Up Files and Terminate NOS/VE

You should now back up all of your permanent files and terminate the system following your normal shutdown process.

NOTE

Before terminating your system, ensure that you have enough class P devices in your system to accomodate non-system critical product files.

NOTE

Control Data recommends that you deactivate Archive/VE prior to terminating your system. Execute the following command from the system console to deactivate Archive/VE:

```
DEACTIVATE_ARCHIVE_VE
```

Refer to the Permanent File Maintenance chapter of the SPMM/Vol2 for details on backing up your permanent files. Refer to the NOS/VE Operations manual (60463914) for a description of the TERMINATE_SYSTEM command.

NOTE

If your tape equipment is shared between NOS/VE and a dual state partner, you must be sure it is in the correct state before entering the TERMINATE_SYSTEM command. The tape unit which is used for a tape deadstart, the controller, and the channel to which it is connected must be in the ON state on NOS/VE and in the DOWN state on the dual state partner.

Step 2: Upgrade the Dual State Partner

If you are upgrading a standalone NOS/VE system, you may skip this step.

If you are not using standalone NOS/VE, you must first ensure that your dual state partner (NOS or NOS/BE) is at a level compatible with NOS/VE 1.7.1 L803. Appendix D of this IHB lists the compatible levels of dual state partners.

NOTE

During the upgrade of your dual state partner, install CIP L803 when you are instructed to install a new CIP tape.

The supported dual state partners and steps to upgrade them are:

NOS L803	Follow the instructions given in the Upgrade Installation chapter of the NOS Version 2 Installation handbook (60459320).
NOS L797/780/774	Refer to the section called Dual State on Older NOS Systems found in the NOS Version 2 Installation handbook (60459320).
NOS/BE L664/682/712/744	Perform the instructions documented in the NOS/BE Preparation guide (SMD132522).

After completing the steps in the NOS Version 2 Installation handbook (60459320), go to chapter 4 of this handbook and follow the instructions there.

Step 3: Verifying CIP

CIP L803 is required for NOS/VE 1.7.1 L803.

NOTE

Specific information about CIP is contained in the CIP L803 SRB. Installing CIP L803 without first reading the CIP SRB is not recommended, especially for CYBER 93x systems.

Install CIP now if you have not already done so. Read the CIP manual that pertains to your mainframe and page 2-5 of this IHB. You must also install the boot components from the NOS/VE 1.7.1 L803 deadstart tape. Information about installing boot components starts on page 2-5 of this IHB.

If you installed CIP L803 and forgot to load the NOS/VE boot components, subsequent NOS/VE deadstarts are aborted with the following message:

```
NOS/VE BOOT PROGRAMS NOT INSTALLED.
```

Checks are made to ensure that the CIP and NOS/VE levels match. Trying to deadstart NOS/VE 1.7.1 L803 with previous level CIP components causes the following messages to be displayed:

```
SYSL entry not found in the SSR.
Mismatching NOS/VE components.
```

If these messages are displayed, it means the NOS/VE 1.7.1 L803 boot components are not installed on the CIP device from which you are deadstarting. You must install the components from the NOS/VE 1.7.1 L803 deadstart tape.

NOTE

If you install CIP using the install CIP menu selection, Control Data suggests that you copy the values of your NOS/VE Boot Display parameters so that they can be conveniently reestablished.

Step 4: Deadstart NOS/VE 1.7.1 L803

Although the deadstart tape is unconfigured, this is a CONFIGURED deadstart. NOS/VE will use the configuration file which is installed on your system.

1. Enter the DCFILE number at the boot display. Verify that your boot display is correct to deadstart from the NOS/VE 1.7.1 L803 deadstart tape.

2. Perform the following tasks at the Enter system core commands prompt:

   Enter the system core command to define your packing list:

   ```
   SET_SYSTEM_ATTRIBUTE VALIDATE_ACTIVE_SETS 1
   SET_INSTALLATION_TAPE packing_list 'evsn',,type
   ```

   Replace packing_list with any 1- to 16-character SCL name for the file where the packing list file should be stored. This name is used on subsequent INSTALL_PRODUCT commands so it is best to make the name something easy to remember. For example, a good packing list name for the NOS/VE 1.7.1 L803 release would be L803.

NOTE

If you loaded your documentation files as described on page 7-3, you should use the same packing list name here.

NOTE

If you are performing an initial install of CIP during this deadstart, you will also be required to enter a SET_TIME_ZONE command.

   Replace evsn with the 1- to 6-character external VSN of the first installation tape. The VSN for the tape can be found in the media number field of the external tape label. Even if your order contains multiple tapes, it is only necessary to supply the VSN of the first tape. The first installation tape contains the words FULL/PACKING LIST in the name field of the external tape label. (Any additional tailored product tapes contain the words FULL/ADDITIONAL in the name field of the external tape label.)

   Replace type with one of the following keyword values:

MT9$6250	(for orders written on 9-track tape at 6250 cpi)
MT9$1600	(for orders written on 9-track tape at 1600 cpi)
MT18$38000	(for orders written on cartridge tape)

3. Enter GO to continue the deadstart.

4. The deadstart process continues, displaying numerous deadstart messages, followed by the menu below:

```
You have requested a pause for operator intervention.

NOS/VE RECONFIGURATION MENU - CONTINUATION DEADSTART -

You have the following choices for reconfiguration:
   1 - Intervene before installing the physical configuration.
   2 - Intervene before activating existing mass storage set members.
   3 - Intervene after activating existing mass storage set members.
Enter selection, GO, or ?  for HELP.
```

Enter GO

Step 5: Install the Initial Set of NOS/VE Software

1. Numerous messages are displayed in the operator window until the following menu is displayed:

```
Choose one of the following selections:

   1.   Activate the system for production.
   2.   Activate the system for system console usage only.
   3.   Install the Installation Tape.

Enter selection or ? for HELP.
```

   Choose option 3.

2. The following menu is displayed:

```
This display shows your current installation parameters, you may change them,
enter GO to accept them, or enter QUIT if you do not wish to proceed with the
installation.

   1.  File name of the packing list ..... packing_list
   2.  External VSN of the installation tape .... 'evsn'
   3.  Recorded VSN of the installation tape .... 'evsn'
   4.  Type of the installation tape ..... type
   5.  Save previous file cycles ..... FALSE

Enter a menu selection, GO, QUIT, or ? for HELP.
```

   The parameters packing_list, evsn, and type are shown with the values you supplied when you executed the system core command SET_INSTALLATION_TAPE in step 4. If you want to save previous cycles of your software, change menu selection item 5 from FALSE to TRUE. This results in increased disk space consumption. Control Data recommends that you do not save previous file cycles (that is, leave item 5 set to FALSE.)

Enter GO This causes the following messages to occur:

```
Executing system initiation prolog
System initiation prolog executed

Installing Installation Tape ...

Requesting installation tape with EVSN='evsn' RVSN='evsn'
and TYPE=type ...

The installation identifier assigned to this job is
INSP_packing_list_x.
```

x is a letter incremented for each execution of INSTALL_PRODUCT subcommand.

NOTE

If your release tapes were written at 1600 bpi, you may be required to mount an additional product tape. Watch for the word ACTION to flash on the right hand side of the console screen. If this occurs, press the STOP key and F4 function key. This will bring up a display that shows the tape VSN being requested. The VSN can be found in the MEDIA NO. field of the external tape label. Mount the tape and the flashing word ACTION will disappear. Enter the following command to resume processing:

```
RESUME_COMMAND
```

Additional messages are displayed which show how many steps of the installation process have been completed. These messages appear to repeat as a second set of software is installed from tape.

The following message appears when all files have been installed:

```
----- SYSTEM ACTIVATION COMPLETE -----
```

The system has not been activated for production. No users can access the system from either a dual state partner or from other mainframes via the network.

Step 6: Create and Deadstart with a Configured Deadstart Tape

This step instructs you to create a configured deadstart tape, establish a disk based system, and deadstart from disk.

A. Create a Configured NOS/VE 1.7.1 L803 Deadstart Tape

Perform the following tasks to create a configured NOS/VE 1.7.1 L803 deadstart tape:

1. Label a tape which will become your new NOS/VE 1.7.1 L803 deadstart tape. This tape should be labeled with the VSN you will specify on the OEV parameter of the REPLACE_DS_TAPE_CONFIGURATIONS command.

   To label a tape, enter the following command at the system console:

```
CREATE_BLANK_LABELED_VOLUME E=element ..
  EVSN='evsn' D=tape_density ..
  LC=LABEL_FOR_GROUP RMG=RELEASE_TAPES
```

   Replace element with the name of your tape element. You can use the VED TS display to determine the name of your tape element. The default tape element name is $DEADSTART_DEVICE.

   Replace evsn with the 1- to 6-character external VSN of the tape you are labeling as your new deadstart tape.

   Replace tape_density with one of the following keyword values:

MT9$6250	(for a deadsstart tape wrtten on 9-track tape at 6250 cpi)
MT9$1600	(for a deadstart tape written on 9-track tape at 1600 cpi)
MT18$38000	(for a deadstart tape written on cartridge tape)

   When labeling is complete, remove the new deadstart tape and mount the unconfigured deadstart tape (without a write ring) provided with your order.

2. Use the MAINTAIN_DEADSTART_SOFTWARE subcommand REPLACE_DS_TAPE_CONFIGURATIONS to replace the configuration files on the released NOS/VE 1.7.1 L803 deadstart tape with the versions stored in the subcatalog $SYSTEM.SITE_OS_MAINTENANCE.DEADSTART_COMMANDS. Refer to the Deadstart File Software chapter of the SPMM/Vol2 for details on replacing the deadstart tape configuration. You will use the released NOS/VE 1.7.1 L803 deadstart tape as input, and a new tape for the output.

B. Establish Disk Based System

To allow future deadstarts to occur from disk rather than tape, you must establish a disk based version of the deadstart tape with the MAINTAIN_DEADSTART_SOFTWARE subcommand ESTABLISH_DISK_BASED_SYSTEM. Refer to the Deadstart File Software chapter of the SPMM/Vol2 for details on establishing a disk based system. Use your NOS/VE 1.7.1 L803 configured deadstart tape (without a write ring) to perform this step.

After you have established the system to disk, you must issue the following MAINTAIN_DEADSTART_SOFTWARE subcommand:

```
COMMIT_NEW_SYSTEM
```

C. Perform a Disk Deadstart

Perform the following tasks from the system console:

1. Enter the following command at the system console to terminate NOS/VE:

   ```
   TERMINATE_SYSTEM
   ```

2. Initiate a deadstart of NOS/VE with operator intervention. You should change the menu to initiate a deadstart from disk and change the DCFILE number to the correct number for your system.

3. When the Enter system core commands: prompt appears, enter:

   ```
   GO
   ```

4. The following message menu appears after numerous other messages:

   ```
   You have requested a pause for operator intervention.

   NOS/VE RECONFIGURATION MENU - CONTINUATION DEADSTART -

   You have the following choices for reconfiguration:
      1 - Intervene before installing the physical configuration.
      2 - Intervene before activating the existing mass storage set members.
      3 - Intervene after activating the existing mass storage set members.
   Enter selection, GO, or ? for HELP.
   ```

   Enter GO

5. Numerous messages are displayed in the operator window until the following menu is displayed.

```
Choose one of the following selections:

   1.   Activate the system for production.
   2.   Activate the system for system console usage only.
   3.   Install the Installation Tape.

Enter selection or ? for HELP.
```

Choose option 2.

6. The following message appears when system activation is complete:

```
----- SYSTEM ACTIVATION COMPLETE -----
```

Step 7: Modify Scheduling Classes

This step describes how to modify the definitions for the scheduling classes that your system uses during the software upgrade process.

Use the command CREATE_PROFILE_FOR_UPGRADE (CREPFU) of the CREATE_INSTALLATION_ENVIRONMENT utility to create a temporary scheduling profile to be used during the remainder of the upgrade process. The temporary profile limits access to the system to only those classes which are necessary to complete the upgrade. There should be as little access to the system as possible in order to avoid using mixed levels of software. The temporary profile is based upon the current scheduling profile. Job initiation is disabled for all job classes except SYSTEM, MAINTENANCE, and any other job class you may choose.

During the course of the upgrade, you may be required to define additional scheduling classes for certain products. In order for this to be successful, select the default file name for the CREATE_PROFILE_FOR_UPGRADE subcommand parameter SAVE_PROFILE (that is, $SYSTEM.SCHEDULING_PROFILE). This will not only update the active profile at the appropriate time, but will also update your scheduling profile file. If you choose some other file name, the changes made during the upgrade will be lost when you restore your scheduling profile following the upgrade.

If you have made local changes to your active profile using the MANAGE_ACTIVE_SCHEDULING utility without also making these changes using the ADMINISTER_SCHEDULING utility, these changes will be written to the file which you specify for the SAVE_PROFILE parameter of the CREATE_PROFILE_FOR_UPGRADE subcommand. If you do not want these changes to be made permanent, save a copy of your scheduling profile file prior to initiating the CREATE_PROFILE_FOR_UPGRADE subcommand. When the upgrade is complete, you must then restore the saved version of the scheduling profile file and repeat any changes made to the scheduling profile during the upgrade.

NOTE

If you are adding one or more of the following products to your system, you should update your scheduling profile to include special service classes for these products:

IM/BASISplus, Network Archiving, NFS, PTF/QTF, TCP/IP, X/Windows

Refer to page 2-39 for more information on updating your scheduling profile.

Enter the following commands from the system console:

```
CREATE_INSTALLATION_ENVIRONMENT
  CREATE_PROFILE_FOR_UPGRADE ESC=(site_class_records) ..
    SP=saved_profile
  QUIT
```

Replace site_class_records with any additional job class you want to execute during the remainder of the upgrade. These should be given in the form (JOB_CLASS_NAME,JOB_COUNT). If your system contains IM/BASISplus, you should allow the IM/BASISplus class (default is DM_KERNEL) to run. To do this, you would specify ESC=((DM_KERNEL,10)) for this parameter. You may specify more than one record for this parameter or you may omit the parameter entirely if you have no need for any site classes during the upgrade.

Replace saved_profile with the file name to which your current scheduling profile is saved. This file is used in a later step to restore the original profile after the software upgrade is complete. This parameter defaults to $SYSTEM.SCHEDULING_PROFILE.

This changed profile remains in effect until explicitly changed using the MANAGE_ACTIVE_SCHEDULING utility. This is done as part of step 12 in this chapter.

Step 8: Special Upgrade Installation Tasks

Some NOS/VE products require special installation tasks to be performed prior to loading the products. This step describes these tasks for the indicated products.

NOTE

If any of these products are part of your upgrade order as new products (that is, this is the first time you have received them), do not perform the special upgrade tasks for these products. These tasks are only intended for the upgrade of these products.

Accounting Analysis and Accounting Utilities

If you are using either the Accounting Analysis or Accounting Utilities products and you wish to gather accounting data for the installation jobs, you must install these products prior to beginning the actual installation process.

The following commands install the accounting products. The P parameter should specify only the products you wish to install.

```
INSTALL_SOFTWARE
  INSTALL_PRODUCT PL=packing_list ..
    P=(ACCOUNTING_ANALYSIS_SYSTEM, ACCOUNTING_UTILITIES)
  QUIT
```

Replace packing_list with the packing list name you specified in step 4 on page 7-15 for the SET_INSTALLATION_TAPE command. Previous old cycles are not saved.

Refer to chapter 8 for additional installation instructions for these products.

Archive/VE

If you are upgrading Archive/VE, perform the instructions below from the NOS/VE system console:

1. Ensure that the Archive/VE processors are deactivated. If they are active, enter:

```
DEACTIVATE_ARCHIVE_VE
```

2. Delete the old version of ARCHIVE_RETRIEVAL_FILE and delete the product binaries for release prior to NOS/VE 1.7.1 L803. Execute the following commands to delete the old version of ARCHIVE_RETRIEVAL_FILE and obsolete files if present:

```
TASK RING=3
  DELETE_FILE F=$SYSTEM.ARCHIVE_VE.ARCHIVE_RETRIEVAL_FILE ..
    STATUS=OSV$STATUS
  DELETE_FILE F=$SYSTEM.ARCHIVE_VE.BOUND_36D_LIBRARY ..
    STATUS=OSV$STATUS
  DELETE_FILE F=$SYSTEM.ARCHIVE_VE.BOUND_3DD_LIBRARY ..
    STATUS=OSV$STATUS
  TASKEND
```

3. When Archive/VE was initially installed, the job activation files were placed into the subcatalog $SYSTEM.ARCHIVE_VE.PROCESSOR_JOBS. You may have modified these files to meet your operational requirements. If you have modified the Archive/VE job activation files in the subcatalog $SYSTEM.ARCHIVE_VE.PROCESSOR_JOBS, you must prepare to reapply these modifications after the Archive/VE product is loaded from the release tapes. Perform whatever steps are required to gather the modifications you have made to these files and save them for later use.

   Once you have saved your modified job activation files in some place other than the subcatalog $SYSTEM.ARCHIVE_VE.PROCESSOR_JOBS, delete the old versions by entering the following command:

```
DELETE_CATALOG ..
  C=$SYSTEM.ARCHIVE_VE.PROCESSOR_JOBS DO=CO
```

4. If you plan to use more than one processor for archiving files, you should add the following commands to the file $SYSTEM.PROLOGS_AND_EPILOGS.JOB_ACTIVATION_EPILOG: (These commands should be added immediately after the command ACTIVATE_ARCHIVE_VE.)

```
MANAGE_ARCHIVE_ACTIVITY LIST=$NULL
  CHANGE_RETRIEVAL_PRECEDENCE PROCESSOR=processor_list
  QUIT
```

   Replace processor_list with your list of processors. It is necessary that these processors be listed in order of retrieval precedence with the processor of highest precedence listed first. There are four pre-defined processors available. They are:

TAPE	for open reel magnetic tape
CARTRIDGE_TAPE	for cartridge magnetic tape
CSS	for cartridge storage system (799x Mass Storage System)
ARCHIVE_TO_NOS	for the Archive/VE Options for 7990-NOS

   Your processor list may contain your own site-defined processors, any of the pre-defined processors, or any combination of the two.

Archive/VE Option for 7990-NOS

Perform the following steps to prepare for the installation of the 7990-NOS Archive/VE Option.

1. When this product was initially installed, the file $SYSTEM.ARCHIVE_VE.PROCESSOR_JOBS.ARF$ARCHIVE_TO_NOS was modified to include a NOS/VE identifier and your NOS mainframe ID. Optional modifications may have also been made. You will need to reapply these changes after this product is installed. Perform whatever steps are necessary to gather these changes and save them for later use.

2. If your site performed the tasks in this step for Archive/VE, you may skip this task because you have already deactivated you Archive/VE Option for 7990-NOS, otherwise, enter the following command to deactivate the processor:

```
DEACTIVATE_ARCHIVE_VE PROCESSOR=ARCHIVE_TO_NOS
```

IM/BASISplus

NOTE

If the IM/BASISplus product is part of your upgrade order as a new product (that is, this is the first time you have received it), do not perform the tasks below. These tasks are only intended for the upgrade of this product. Instead, enter the following commands from the system console and then perform step 15 on page 2-41 to perform special installation preparation tasks for IM/BASISplus.

```
MANAGE_ACTIVE_SCHEDULING
  CHANGE_JOB_CLASS CN=BATCH  ECI=TRUE
  QUIT
```

If you are migrating from IM/DM to IM/BASISplus, you may perform the steps below.

If you are upgrading IM/BASISplus and plan to install it on a family other than NVE, execute the following commands from the system console:

```
INSTALL_SOFTWARE
  CHANGE_INSTALLATION_PATH P=IM_BASISPLUS_PACKAGE FN=family ..
    PL=packing_list
  QUIT
```

Replace family with the name of the NOS/VE family in which IM/BASISplus resides. Replace packing_list with the packing list specified in step 4 on page 7-15 for the SET_INSTALLATION_TAPE command.

RMS

If RMS is already installed and active at your site, enter the following commands from the system console:

```
TERMINATE_MEDIA_LIBRARY STATE=INACTIVE
DELETE_COMMAND_LIST_ENTRY :$SYSTEM.$SYSTEM.RMS.RSF$COMMAND_LIBRARY
```

Step 9: Load Product Tapes

You should now install the remaining required and optional products by using the INSTALL_SOFTWARE (INSS) command from the system console. All licensed products are automatically installed when you issue the INSTALL_PRODUCTS subcommand within these instructions.

If you wish to see what products are available for installation, you may execute the following commands:

```
INSTALL_SOFTWARE
  DISPLAY_PACKING_LIST PL=packing_list ..
    O=$LOCAL.PRODUCT_LIST
  QUIT
```

Replace packing_list with the packing list name you specified on page 7-15 in step 4 for the SET_INSTALLATION_TAPE command.

The file, $LOCAL.PRODUCT_LIST, displays all the licensed products on your order, and if special conditions exist, it may show some of the subproducts that make up a licensed product. For the purpose of simplifying product support and installation, some licensed products are subdivided into multiple subproducts. For example, CDCNET and Mail/VE Version 2 are subproducts of NOS/VE. Special conditions that would cause a subproduct to be displayed in this listing are:

- The subproduct will not be automatically installed (for example, DWB/VX is not installed automatically because it must be loaded after VX/VE has been loaded).

All licensed products in your order, except those not automatically installed, can be installed with a single INSTALL_PRODUCT command by specifying the P=ALL option. Those subproducts not automatically installed, such as ONLINE_MANUALS_SOURCE, must be installed by specifying the specific subproduct name on a separate INSTALL_PRODUCT command. While it is possible to install products singly by specifying the product name, Control Data recommends that the P=ALL option be used, provided you have enough disk space available to load all products at the same time. This is the most efficient way of installing product software.

NOTE

If you have a shortage of disk space, you may not be able to load all products in the manner described above. In the event that you are unable to load all of your software at the same time, one of the following two methods can be used to install your system. The first method is preferrable to the second.

- Enter the INSTALL_PRODUCT command as described above, but only mount one tailored product tape at a time. Allow the batch job for that tape to finish before mounting the next tape.
- For more severe space problems, you may execute INSTALL_PRODUCT multiple times, each time specifying one or more individual product names on the P parameter. Allow each subproduct or set of subproducts to complete before issuing the next INSTALL_PRODUCT subcommand. Refer to the SPMM/Vol2 for more information on how to specify products on the INSTALL_PRODUCT subcommand.

The following commands install all the licensed products on your order that were not installed during the initial deadstart process. These commands install only those products which are identified as being automatically installed.

```
INSTALL_SOFTWARE
 INSTALL_PRODUCT PL=packing_list P=ALL
 QUIT
```

Replace packing_list with the packing list you specified on the system core command SET_INSTALLATION_TAPE on page 7-15 in step 4.

After validating your input, this command displays the installation identifier for the installation. The installation identifier is the name of the subcatalog of catalog $SYSTEM.SOFTWARE_MAINTENANCE.INSTALLATION_LOGS where information about the installation is kept. The name of the catalog is of the form INSP_packing_list_x where packing_list is the packing list name and x is a letter incremented for each execution of INSTALL_PRODUCT subcommand.

A separate job is issued for each tailored product tape from which software is installed. The system prompts you to mount the tailored product tapes as they are needed. When the prompt appears, mount the requested reel on a NOS/VE tape drive. The tape is assigned and read automatically. The VSN for each requested tape is contained in the media number field on the external tape label.

If an installation job aborts for any reason, an operator request appears at the console. Note the message that includes the name of the installation job. Respond with the ACKNOWLEDGE_OPERATOR_MESSAGE operator command, look at the logs, and contact Central Software Support.

To monitor the progress of the installation, you can check for the jobs on the active job display by entering:

```
VEDISPLAY DO=ACTIVE_JOBS
```

After all installation jobs complete, execute the following to list all of the products that were loaded.

```
INSTALL_SOFTWARE
 DISPLAY_INSTALLED_SOFTWARE
 QUIT
```

The display lists subproduct and licensed product names along with the level and date installed for each subproduct. If a subproduct of a licensed product did not install successfully, a message indicating which subproduct was not installed is displayed next to the subproduct name.

Step 10: Enable Access to the System

In the steps that follow, you are required to login to NOS/VE. To do so, you must activate the system which allows access through the NOS/VE network or a 170 partner for dual state configurations.

Copy New Archive/VE Processor Jobs

It is necessary to create production copies of the job activation files at this time.

To do this, you must copy the appropriate processor files to the PROCESSOR_JOBS subcatalog. The procedure COPY_PROCESSOR_JOB_FILES will help you do this.

The following commands copy the job activation files for the concurrent version of magnetic tape processors introduced at NOS/VE 1.7.1 L803. Enter the following commands at the system console to execute the copy procedure:

```
CREATE_INSTALLATION_ENVIRONMENT
  COPY_PROCESSOR_JOB_FILES P=(list_of_processors)
  QUIT
```

Replace list_of_processors with either the keyword ALL to copy all the processor job files into the PROCESSOR_JOBS catalog, or one or more of the following keywords:

ARCHIVE_TO_NOS	If you plan to use NOS-7990 as an archival medium.
CARTRIDGE_STORAGE_SYSTEM	If you plan to use Cartridge System/VE as an archival medium.
CARTRIDGE_TAPE	If you plan to use cartridge tape as an archival medium.
CARTRIDGE_TAPE_RMS	If you plan to use cartridge tape with RMS as an archival medium.
CLUSTERED_MAINFRAMES	If you plan to user Archive/VE in a cluster mainframe environment.
MAG_TAPE	If you plan to use magnetic tape as an archival medium.
MAG_TAPE_RMS	If you plan to use magnetic tape with RMS as an archival medium.

PSEUDO_TAPE	If you plan to use pseudo tape as an archival medium for testing purposes.

The following commands copy the job activation files for the serial version of magnetic tape processors available with and prior to NOS/VE 1.6.1 L780. Use these commands only if you wish to use the previous version of the archive and retrieval tape processors. These processors are being retained for compatibility purposes and will be eliminated at a future release. Enter the following commands at the system console to execute the copy procedure:

```
CREATE_INSTALLATION_ENVIRONMENT
  COPY_PROCESSOR_JOB_FILES P=(list_of_processors) ..
       PREVIOUS_MAG_TAPE_PROCESSOR=TRUE
  QUIT
```

Replace the list_of_processors with either the keyword ALL to copy all the processor job files into the PROCESSOR_JOBS catalog, or one or more of the keywords above.

NOTE

Do not copy both the concurrent and previous versions of the job activation files for a tape processor unless you plan to configure them for different processor names or plan to activate only one version at a time. The two versions of these processors should not be in execution for the same processor name simultaneously.

Update CDCNET Configuration

If your site is not using the NOS/VE network, skip to the Enable Access section below.

1. Enter the following command to add the proper CDCNET library to your command list:

   ```
   CREATE_COMMAND_LIST_ENTRY ..
     E=$SYSTEM.CDCNET.VERSION_INDEPENDENT.COMMAND_LIBRARY
   ```

2. Use the SET_VERSION_LEVEL command to change your exception list by entering the following:

   ```
   SET_VERSION_LEVEL PO=EXCEPTION_LIST V=9999
   ```

   This causes the new version of DI software to be loaded with the next DI reset. SET_VERSION_LEVEL is documented in the CDCNET Command Manual (60000414).

3. Manually reset all the DIs being upgraded by use of the toggle switch on the MPB board in each DI.

NOTE

The DI will not load until the system is activated for production.

Enable Access

To enable access to the system, you must activate it for production. The temporary scheduling profile activated in step 7 that disabled job initiation and interactive users is still in effect.

1. Activate the system for production by entering the following command at the system console:

```
ACTIVATE_PRODUCTION_ENVIRONMENT
```

   Many messages are displayed. When you see the message below, you may continue.

```
System activated for production.
```

2. Enter the following commands at the system console to allow access for one interactive user.

```
MANAGE_ACTIVE_SCHEDULING
  CHANGE_JOB_CLASS CN=INTERACTIVE ECI=TRUE
  QUIT
```

   After you log into the desired user name, return to the system console and enter the following commands to reset the access to prevent other users from logging in once you terminate your interactive terminal session.

```
MANAGE_ACTIVE_SCHEDULING
  CHANGE_JOB_CLASS CN=INTERACTIVE ECI=FALSE
  QUIT
```

   This resets the access to prevent any other terminals from logging into the system. As long as you remain logged in, you are able to perform the necessary installation tasks from the terminal. If you need to log into another user name, you must log out of your terminal session and repeat this step.

Step 11: Product Upgrade Instructions

At this point, turn to chapter 8 for instructions on how to complete the upgrade installation of the following products:

NOTE

Product names that contain the words NOS/VE in parentheses indicate that every NOS/VE customer has that product. These products are packaged as an integral part of NOS/VE.

- Accounting Analysis System and Accounting Utilities
- Archive/VE
- Archive/VE Option for 7990-NOS
- CDCNET (NOS/VE)
- DWB/VX
- File Server
- IM/BASISplus
- IM/Control
- IM/Smart
- Mail/VE Version 2 (NOS/VE)
- Network File System
- Network Transfer Facility
- Transmission Control Protocol/Internet Protocol
- VX/VE
- X/Windows 4.1

NOTE

If any of the products or subproducts on your upgrade order are new (that is, this is the first time you have received them), perform the special installation tasks documented in chapter 3, Special Product Initial Installation Tasks, instead of the instructions in chapter 8. This applies to licensed products as well as subproducts that are new. Refer to appendix B for a complete list of licensed products and a list of subproducts belonging to the NOS/VE product. Any product or subproduct which is new for this release is specially marked in the appendix.

NOTE

If you are migrating from IM/DM to IM/BASISplus, you should perform the special installation tasks in chapter 3.

Step 12: Upgrade Wrap Up

Once all products have been upgraded, you should perform a permanent file backup of the system. At a minimum, you should back up the $SYSTEM family and any files which may have changed on your default family.

Activate the Scheduling Profile for Production

Activate your original scheduling profile settings by entering the following commands from the system console:

```
MANAGE_ACTIVE_SCHEDULING
  ACTIVATE_PROFILE P=scheduling_profile
  QUIT SC=NO
```

Replace scheduling_profile with the file name you specified on the CREATE_PROFILE_FOR_UPGRADE subcommand of the CREATE_INSTALLATION_ENVIRONMENT utility entered in step 7 on page 7-22 of this manual. You must enter a value for this parameter.

These commands activate this scheduling profile in the system scheduler tables and save the profile on file $SYSTEM.SCHEDULING.OSF$SYSTEM_PROFILE. This activates your system for production. The profile is activated at every deadstart.

Perform Site Tailoring

If you are performing any site tailoring, you should do it now by following the instructions in the Site Tailoring chapter of the SPMM/Vol2.

If you are using a modified SRU calculation algorithm, you must recompile your changes using the new source library which contains the source for all of the software which can be tailored. The Site Tailoring chapter contains information about the new source library and the technique for compiling the SRU calculation algorithm.

Once you have compiled the new algorithm, use the MAINTAIN_DEADSTART_SOFTWARE subcommands GENERATE_VE_DEADSTART_CATALOG and CREATE_VE_DEADSTART_TAPE to create a new deadstart tape. Use this tape to establish a disk based system again. Refer to the Deadstart File Software chapter of the SPMM/Vol2 for further information on establishing a disk based system. This ensures your tailored software is used when the system is deadstarted for production.

Final Items

Once you have completed your installation, fill out the Software Installation Quality Program questionnaire shipped with your software order and return it to Control Data at the address provided.

Chapter 8
Special Product UPGRADE Installation Tasks

This chapter describes additional tasks you must perform to complete the upgrade installation of the following products:

- Accounting Analysis System and Accounting Utilities
- Archive/VE
- Archive/VE Option for 7990-NOS
- CDCNET (NOS/VE)
- DWB/VX
- File Server
- IM/BASISplus
- IM/Control
- IM/Smart
- Mail/VE Version 2 (NOS/VE)
- Network File System
- Network Transfer Facility
- Transmission Control Protocol/Internet Protocol
- VX/VE
- X/Windows 4.1

NOTE

Product names followed by the words NOS/VE in parentheses signify that every NOS/VE customer has that product. These products are packaged as an integral part of NOS/VE.

The chapter is organized alphabetically by product name. Refer to the NOS/VE 1.7.1 L803 SRB for additional details on these special products.

Accounting Analysis System and Accounting Utilities

There are two accounting products on NOS/VE: the Accounting Analysis System and the Accounting and Validation Utilities.

To install these products, execute the following commands from an interactive terminal logged into the system administrator user name.

```
SYSTEM_OPERATOR_UTILITY
  CREATE_COMMAND_LIST_ENTRY E=$SYSTEM.ACCOUNTING_ANALYSIS_SYSTEM
  INSTALL_ACCCOUNTING_ANALYSIS
  QUIT
```

For more information regarding activation and preparation for collecting accounting information, refer to the NOS/VE Accounting Analysis System manual (60463923) and the NOS/VE Accounting and Validation Utilities for Dual State manual (60458910).

Archive/VE

If you use production copies of the job activation files identical to the release versions, you may skip this section.

If you have made local changes to the production copies of the job activation files, perform the following steps:

1. Deactivate Archive/VE by entering the following command at the system console:

   ```
   DEACTIVATE_ARCHIVE_VE
   ```

2. The production copies of the job activation files may now be modified to meet your operational requirements. Prior to loading the product tapes, you were instructed on page 7-25 to gather any local changes to the job activation files. You should now re-apply those local changes at this time.

   It is recommended that you do not modify the release versions of the job activation files in subcatalogs $SYSTEM.ARCHIVE_VE.ARF$MAGNETIC_TAPE and $SYSTEM.ARCHIVE_VE.ARF$CARTRIDGE_STORAGE_SYSTEM.

   The content of the job activation files has changed at NOS/VE 1.6.1 L780. A list of items that sites may want to change, and the action needed to make the change follow:

   - To change the user job name this processor job uses, change the variables ARV$PROCESSOR_JOB_IDENTIFIER and ARV$PROCESSOR_JOB_UNIQUE_NAME.
   - To change the name of the processor job log file, change the variable ARV$ARCHIVE_VE_LOGFILE.
   - To change the name of the library containing intercept procedures for the processor job, change the variable ARV$INTERCEPT_LIBRARY.
   - To have the processor job copy the Backup Permanent File Utility listing to the Archive/VE logfile when an error is detected by BACPF, change the variable ARV$COPY_BACPF_LIST_IF_ERROR to TRUE.

   Additional items that sites may want to change, and the action needed to make the change follow. When these changes are made for a previous version of tape processor that has separate archive and retrieval processor jobs, the change must be made twice, once in the archive processor job activation file and once in the retrieval processor job activation file.

- To change the name of the processor this processor job creates and registers, change the variable ARV$PROCESSOR_LIST_CONTENTS.

- To have this processor job create and register additional processors, add new processor names to the list for variable ARV$PROCESSOR_LIST_CONTENTS.

- To change the timeout period for the idle helper jobs for the concurrent tape processor job, change the variable ARV$SUBPROCESSOR_TIME_OUT_MIN.

- To change the catalog used to contain the permanent files created by a pseudo tape processor job, change the variables ARV$PSEUDO_TAPE_CATALOG and ARV$MASS_STORAGE_CLASS.

- To change the attributes of the processors this processor job creates and registers, make the desired changes to the CHANGE_PROCESSOR_ATTRIBUTES and CHANGE_PROCESSOR_SCHEDULING_ATT subcommands issued in the MANAGE_ARCHIVE_ACTIVITY section of the processor job activation file. These attributes specify intercept procedures and the degree of concurrency for tape processing.

Refer to the Archive/VE Basic Concepts chapter of the NOS/VE File Archiving Manual (60463944) and the processor job activation files for more information.

3. Activate Archive/VE by entering the following command at the system console:

```
ACTIVATE_ARCHIVE_VE
```

Archiving Across Clustered Mainframes

At NOS/VE 1.7.1 L803, enhancements were made to Archive/VE to support archiving across mainframes. The processing required to handle archiving and retrieving files in a clustered configuration is handled internal to Archive/VE. The installation procedures needed when using Archive/VE to archive and retrieve files across clustered mainframes is described in the Clustered Mainframe Configurations chapter of the NOS/VE File Archiving manual (60463944). The steps described in the section Setting Up a Clustered Configuration must be performed in order to archive files across mainframes. You should also read the Overview and Archive/VE Basic Concepts and Set Up chapters of the NOS/VE File Archiving manual (60463944) prior to performing your installation.

Refer to the following manuals for information on these and other topics related to Archive/VE in a File Server environment:

- NOS/VE File Server for STORNET and ESM-II manual (60000190)
- NOS/VE File Archiving manual (60463944)

Archive/VE Option for 7990-NOS

Prior to installing this product with the INSTALL_SOFTWARE utility, you should have performed some preparation steps (described in the section titled Archive/VE Option for 7990-NOS of step 8 on page 7-26.) You must now perform the following tasks from the NOS/VE console to complete the installation of this product.

If you use production copies of the job activation files identical to the release versions, you may skip this section.

If you have made local changes to the production copies of the job activation files, perform the following steps:

1. Deactivate Archive/VE with the following command:

   ```
   DEACTIVATE_ARCHIVE_VE
   ```

2. The production copies of the job activation files may now be modified to meet your operational requirements. Prior to loading the product tapes, you were instructed on page 7-25 to gather any local changes to the job activation files. You should now re-apply those local changes at this time.

   It is recommended that you do not modify the release versions of the job activation files in subcatalog $SYSTEM.ARCHIVE_VE.ARF$ARCHIVE_TO_NOS.

3. Activate Archive/VE with the following command:

   ```
   ACTIVATE_ARCHIVE_VE
   ```

CDCNET (NOS/VE)

This section is only applicable if you are running the NOS/VE network.

At this point in the installation, a new CDCNET version catalog has been installed to the $SYSTEM.CDCNET catalog. Also, the VERSION_INDEPENDENT files from that version have been copied to the $NEXT cycle of the VERSION_INDEPENDENT catalog. The previous versions of those files are in the $HIGH minus one cycle. Because the VERSION_INDEPENDENT files have been updated, the default version level of the CDCNET host utilities ANACD, MANCC, and NPA has been changed to match the released CDCNET version level.

The files in the $SYSTEM.CDCNET.SITE_CONTROLLED catalog contain site specific configuration information and are not updated as part of the installation of a new release.

Perform the following tasks to complete the installation of a new version of CDCNET.

1. If the PROCESS_LOG_JOB file is present in the VERSION_INDEPENDENT catalog, you must update it to reflect any modifications that you may have made to the previous version of this file. The new files are in the $HIGH cycle and the previous versions of the files are in the $HIGH minus one cycle.

   If the PROCESS_LOG_JOB file is present in the SITE_CONTROLLED catalog, no changes are required at this time.

2. Once you are sure that you no longer need the previous level of CDCNET software, delete the former version catalog. To do this, execute the commands shown below from the NOS/VE system console. Before executing the commands, be sure that your CDCNET exception list (file $SYSTEM.CDCNET.SITE_CONTROLLED.EXCEPTION_LIST) and CDCNET version file (file $SYSTEM.CDCNET.VERSION_INDEPENDENT.CDCNET_VERSION) do not reference the version of CDCNET you intend to delete. In a multi-host network, you should also be sure that no other DI can request a load of the deleted level.

NOTE

To install a CDCNET Batch Critical Update (BCU), you must not delete the $SYSTEM.CDCNET.VERSION_9999 catalog. This catalog and all the files in it must remain in your system until you are no longer running NOS/VE 1.7.1 L803. These files are required for any subsequent BCU installations.

To delete an old version, enter these commands from the system console:

```
TASK RING=6
DELETE_CATALOG C=$SYSTEM.CDCNET.VERSION_vvvv DO=CATALOG_AND_CONTENTS
TASKEND
```

Replace vvvv with the version level of CDCNET that you wish to delete.

3. Newly released configuration procedures (TUP, TDP, or VFU load) are found in the $SYSTEM.CDCNET.VERSION_9999.SITE_CONTROLLED.PROCEDURES catalog in object library files DEVICE_LOAD, TERMINAL, and USER. To use them, you must place them on the appropriate object library in the $SYSTEM.CDCNET.SITE_CONTROLLED.PROCEDURES catalog. You do this with the CREATE_OBJECT_LIBRARY (CREOL) utility as described in this task.

   The release tapes may contain new configuration procedures and updates to existing ones. Combining these new or updated procedures with those already installed is optional. Consult the CDCNET chapter of the SRB for information about changes to the released procedures.

   If you choose to use the new or updated configuration procedures provided by Control Data, you must use one of two approaches to combining the released procedures with those already installed on your system. The main difference depends upon whether or not you wish to retain any local changes you may have made to these procedures. Perform the following tasks either from the system console or a user name that has permission to update the catalog $SYSTEM.CDCNET.SITE_CONTROLLED.PROCEDURES.

   a. Save any local modifications you may have made to these procedures. Be prepared to re-apply these local modifications in a subsequent task.

b. Choose between one of the two approaches to generate new procedure libraries.

- If you have no local modifications to the procedures and wish to combine all new and updated procedures supplied by Control Data, enter the following commands:

```
CREATE_OBJECT_LIBRARY
  ADD_MODULE ..
    L=$SYSTEM.CDCNET.SITE_CONTROLLED.PROCEDURES.file
  COMBINE_MODULE ..
    L=$SYSTEM.CDCNET.VERSION_9999.SITE_CONTROLLED..
.PROCEDURES.file
  GENERATE_LIBRARY ..
    L=$SYSTEM.CDCNET.SITE_CONTROLLED.PROCEDURES.file.$NEXT
  QUIT
```

  where file is DEVICE_LOAD, TERMINAL, or USER. If you want to update all three object libraries, you must perform the example three times, once with each file name.

- If you have local modifications to the procedures and wish only to install new ones released by Control Data, enter the following commands:

```
CREATE_OBJECT_LIBRARY
  ADD_MODULE ..
    L=$SYSTEM.CDCNET.VERSION_9999.SITE_CONTROLLED..
.PROCEDURES.file
  COMBINE_MODULE ..
    L=$SYSTEM.CDCNET.SITE_CONTROLLED.PROCEDURES.file
  GENERATE_LIBRARY ..
    L=$SYSTEM.CDCNET.SITE_CONTROLLED.PROCEDURES.file.$NEXT
  QUIT
```

  where file is DEVICE_LOAD, TERMINAL, or USER. If you want to update all three object libraries, you must perform the example three times, once with each file name.

c. If you had any local modifications that you saved in the first task and wish to continue utilizing these modifications, re-apply those modifications now.

For more information about the CREATE_OBJECT_LIBRARY utility, refer to the NOS/VE Object Code Management manual (60464413).

DWB/VX

DWB/VX is the Documentor's Workbench software for VX/VE. It is an integrated set of tools for document production. Ensure that you have upgraded VX/VE prior to upgrading DWB/VX.

Execute the following commands from the system console to upgrade DWB/VX:

```
INSTALL_SOFTWARE
  INSTALL_PRODUCT PL=packing_list P=DWB_VX
  QUIT
```

where packing_list is the packing list parameter you entered on the SET_INSTALLATION_TAPE system core command in step 4 on page 7-15. If DWB/VX is being installed via the component order installation process (see chapter 9), the packing list parameter is the value you entered on the LOAD_PACKING_LIST subcommand described on page 9-1. The INSTALL_SOFTWARE utility causes a batch job to be submitted which installs DWB/VX.

NOTE

If your site uses spell(1) with the spelling list, the following file must be restored after the upgrade.

```
/usr/lib/spell/spellhist
```

See page 8-37 of this IHB.

File Server

Refer to the NOS/VE File Server for STORNET and ESM-II manual (60000190) for details on the configuration of the File Server product.

IM/BASISplus

If you are migrating from IM/DM to IM/BASISplus, you should execute the installation procedure as detailed on pages 3-27 through 3-29.

Perform the following steps to complete the upgrade of IM/BASISplus.

1. Login from a terminal to the user name DMROOT. Remove the command .DMROOT.DM$COMMANDS from the user prolog, logout, then log back into user name DMROOT. All error messages should be eliminated.

2. Execute the IM/BASISplus installation procedure (refer to page 3-27). Do not activate the kernel when following the prompts for the INSTALL procedure. The kernel must not be active while restoring the authority database.

3. Restore the authority database.

   After the installation is complete, restore the authority database that you backed up on page 7-8. To restore the authority database, enter the DMSA module and use the RESTORE/DB command. For example, you could follow these steps to restore an authority database.

```
DMSA UID=SAUID UPW=SAUPW AIDS=NO
  RESTORE/ADB OLD='.DMROOT.SYSA_DM' +
    NEW='.DMROOT.RELL1.DM.RUNDMK.SYSA_DM'
  RESTORE/ADB OLD='.DMROOT.SYSABAK_DM' +
    NEW='.DMROOT.RELL1.SYSABAK_DM'
  EXIT
```

   The default authority database name is SYSA_DM and the default backup authority database name is SYSABAK_DM.

4. Restore alternate kernel set catalogs.

   If you backed up any kernel set catalogs before installing IM/BASISplus, you need to restore them. If you backed up the kernel set by using the BACKUP_PERMANENT_FILE utility, use the RESTORE_PERMANENT_FILE utility to restore the kernel set catalogs. For example, if you backed up the kernel set catalog RUNDMKB by using BACKUP_PERMANENT_FILE, you could restore it by entering the following commands:

```
RESTORE_PERMANENT_FILES L=$LOCAL.LIST
  RESTORE_CATALOG C=.DMROOT.RELL1.DM.RUNDMKB ..
    BF=.DMROOT.RUNDMKB
  QUIT
```

   For more information about RESTORE_PERMANENT_FILES, see the NOS/VE System Usage manual (60464014) .

5. Restore the global database directory and the kernel directory.

   If you backed up the global database directory (GDD) file and the kernel directory (KD) file in item 4 on page 7-9, restore them to the .DMROOT.RELL1.DM catalog. Otherwise, DMNAM and IM/DM STORNET cannot access the remote databases recorded in the GDD. The file path of the GDD is .DMROOT.RELL1.DM.DMGDD1_GDF. The file path of the KD is .DMROOT.RELL1.DM.DMKD1_KDF. To restore these files, you could enter the following commands:

```
COPY_FILE I=.DMROOT.DMGDD1_GDF O=.DMROOT.RELL1.DM.DMGDD1_GDF
COPY_FILE I=.DMROOT.DMKD1_KDF O=.DMROOT.RELL1.DM.DMKD1_KDF
```

6. Restore other files with site-specific tailoring.

   If you backed up site-specific files in item 5 on page 7-9, restore them with this step. Restore the setdmsite_com file to the .DMROOT.RELL1.DM catalog as follows:

```
COPY_FILE I=.DMROOT.SETDMSITE_COM O=.DMROOT.RELL1.DM.SETDMSITE_COM
```

   If the memory-based recovery files were backed up, restore them to the .DMROOT.RELL1.DM.RUNDMK catalog as follows:

```
COPY_FILE I=.DMROOT.MBRS_01 ..
  O=.DMROOT.RELL1.DM.RUNDMK.MEMORY_BASED_RECOVERY_SETUP_01
COPY_FILE I=.DMROOT.MBRS_02 ..
  O=.DMROOT.RELL1.DM.RUNDMK.MEMORY_BASED_RECOVERY_SETUP_02
            .
            .
COPY_FILE I=.DMROOT.MBRS_09 ..
  O=.DMROOT.RELL1.DM.RUNDMK.MEMORY_BASED_RECOVERY_SETUP_09
```

   To restore the vocabulary file, be sure to include site-specific changes and product changes. Use the DMVP utility. For example, you could restore the vocabulary file as follows:

```
DMVP ACTION=UPDATE GET=.DMROOT.DMVOC.SRC ..
  OLD=.DMROOT.RELL1.DM.DMVOC_VF ..
  NEW=.DMROOT.RELL1.DM.DMVOC_VF
```

   The file .DMROOT.DMVOC_SRC contains site specific changes backed up on page 7-10. This command merges the changes from the .DMROOT.DMVOC_SRC and .DMROOT.RELL1.DM.DMVOC_VF files into one file.

7. Restart the kernel.

   After you perform the upgrade and installation steps listed in this chapter, IM/BASISplus is ready to run. Use DMSA to restart the kernel. For example, to restart the default kernel, you could enter the following:

```
DMSA UID=SAUID UPW=SAUPW AIDS=NO
  BEGIN KERNEL=DMKA1 PW=PW
  EXIT
```

IM/Control

NOTE

At NOS/VE 1.5.3 L765, IM/Control was migrated from an IM/DM application to an IM/BASISplus application and is only available to sites having IM/BASISplus. Perform these special tasks to upgrade to IM/Control 1.2 at NOS/VE 1.7.1 L803 ONLY if you meet one of the following conditions:

a. you are upgrading from IM/Control 1.2 at NOS/VE 1.5.3 L765 or
b. you are upgrading from IM/Control 1.1 at NOS/VE 1.5.3 L766 or
c. you are upgrading from IM/Control 1.2 at NOS/VE 1.6.1 L780.

Perform the following steps to upgrade an existing IM/Control installation to IM/Control 1.2 NOS/VE 1.7.1 L803.

1. Upgrade the IM/BASISplus product to IM/BASISplus level L1 according to the instructions on page 8-11. This process must include restoring your authority databases (ADB) and activating the IM/BASISplus level L1 kernel.

2. At the system console, recreate the MANIFEST_DM_LIBRARY file needed by the other IM/Control installation procedures and the IM/CONTROL execution procedure:

```
CREATE_COMMAND_LIST_ENTRY  E=$SYSTEM.CONTROL.COMMAND_LIBRARY
LOCATE_DM  FAMILY=family_name  DM_LEVEL=L1
DELETE_COMMAND_LIST_ENTRY  E=$SYSTEM.CONTROL.COMMAND_LIBRARY
```

   Replace family_name with the same as the IM/BASISplus family you specified in step 8 on page 7-27.

3. To upgrade the IM/Control database files, perform the following:

```
CREATE_COMMAND_LIST_ENTRY  E=$SYSTEM.CONTROL.COMMAND_LIBRARY
UPGRADE_CONTROL_DATABASE ..
  SYSTEM_ADMINISTRATOR_ID = system_administrator_id ..
  SYSTEM_ADMINISTRATOR_PW = system_administrator_password ..
  LIST = list_file_path
```

   Replace system_administrator_id and system_administrator_password with a currently registered IM/BASISplus user that has IM/BASISplus system administrator privileges and global database access. The default IM/BASISplus system administrator identifier and password are SAUID and SAUPW.

   Replace list_file_path with the name of a file where you want the list to be placed.

The procedure will first determine whether or not the IM/Control database (IMDDDBN) is listed in your IM/BASISplus Authority Database (ADB).

If the entry is found in the Authority Database, the procedure will proceed to the next step. If it is not found, you will be told that it is missing, and asked if it is missing because the IM/BASISplus installer chose the "clean Authority Database" option when installing IM/BASISplus rather than restoring the existing IM/DM Authority Database. You must find out which ADB option the IM/BASISplus installer chose when installing IM/BASISplus. If you say that the entry is missing because the "clean Authority Database" option was chosen then the procedure will make the entry for you later in the execution. If you say that it is missing for some other reason, the procedure will terminate without performing the upgrade.

NOTE

In order for the ADB entry to be made correctly, you must have left the file names for the Definition Database and its two journal files the same. If this is not the case at your site, then this step will not work. At this point you can do one of the following things before running the UPGRADE_CONTROL_DATABASE procedure:

1. Make the entry in the ADB yourself. See the following manual for guidance:

   Manual: NOS/VE Upgrading from IM/DM to IM/BASISplus Usage
   Publication Number: 60487823
   Chapter: Preparing to Use IM/BASISplus
   Section: Upgrading an IM/DM Database to an IM/BASISplus Database

2. Call the Control Data Support Operations Support Hotline for help. See page 1-7 for more information on contacting the hotline

---

If you have answered all the questions in such a way that the procedure has determined that you are ready to upgrade to IM/Control 1.2 at NOS/VE 1.7.1 L803, it will proceed with the upgrade.

If the procedure found the IMDDDBN database missing from the IM/BASISplus Authority Database and you stated that it was missing because you have a "clean" Authority Database, you will be asked to provide the FULL catalog path for the location of your IM/Control database files.

In response to the following prompt:

```
Enter full catalog path.
```

you must provide an answer which must look as follows:

```
:family_name.user_name.subcatalog_name
```

up to the number of subcatalogs in your path.

NOTE

This must be a FULL path name beginning with the family name (including the colon). The family name and user name must be hard-coded, you cannot use the $FAMILY and $USER functions. family_name is the name of the family on your machine, and user_name is the user name where the files reside.

When the UPGRADE_CONTROL_DATABASE procedure has completed execution, it will have done the following:

- If your IMDDDBN database entry was missing from the IM/BASISplus Authority Database because you have a "clean" Authority Database for IM/BASISplus, the procedure will have registered and authorized the appropriate IM/Control user id.
- If your IMDDDBN database entry was missing from the IM/BASISplus Authority Database because you have a "clean" Authority Database for IM/BASISplus, the procedure will have created the entry in the ADB for you.
- Used the DMDBA module to regenerate all system records for database IMDDDBN.

NOTE

To enable on-site upgrading of the IMDDDBN database, the automatic detection of modification to IMDDDBN's User Data Models has been disabled; therefore, it is your responsibility not to modify IMDDDBN's User Data Models. If these User Data Models are changed, no warning will be issued, and IM/Control will not function correctly.

---

4. Verify that IM/Control is installed properly by executing the following commands from your IM/Control administrator user name:

```
CREATE_COMMAND_LIST_ENTRY E=$SYSTEM.CONTROL.COMMAND_LIBRARY
VERIFY_CONTROL
DELETE_COMMAND_LIST_ENTRY E=$SYSTEM.CONTROL.COMMAND_LIBRARY
```

The VERIFY_CONTROL procedure creates and deletes a dictionary and takes about ten minutes to execute.

5. In order to complete the upgrade to IM/Control 1.2 at NOS/VE 1.7.1 L803, you must delete certain subcatalogs and their contents. This will assure that users do not accidentally use command libraries that are only valid with L766.

   a. First, delete subcatalog $SYSTEM.CONTROL_L766 and all of its contents by entering the following command from the system console:

```
DELETE_CATALOG C=$SYSTEM.CONTROL_L766 ..
  DO=CATALOG_AND_CONTENTS
```

   b. All IM/Control users must remove the following command from their prologs:

```
INCLUDE_FILE F=$SYSTEM.CONTROL_L766.SETUP_CONTROL
```

IM/Smart

At NOS/VE 1.5.3 L765, IM/Smart was migrated from an IM/DM application to an IM/BASISplus application and is only available to sites having IM/BASISplus. Perform these special tasks to upgrade to IM/Smart 1.2 at NOS/VE 1.7.1 L803 ONLY if you meet one of the following conditions:

a. you are upgrading from IM/Smart 1.2 at NOS/VE 1.5.3 L765 or
b. you are upgrading from IM/Smart 1.1 at NOS/VE 1.5.3 L766 or
c. you are upgrading from IM/Smart 1.2 at NOS/VE 1.6.1 L780.

Perform the following steps to upgrade to IM/Smart 1.2 at NOS/VE 1.7.1 L803.

1. Make sure the IM/BASISplus product has been installed and the kernel has been activated.

2. Login to the user name where IM/Smart is installed.

3. Make sure that $USER.SMART.COMMAND_LIBRARY is not in your command list. To check if it is in your command list, type in the following command:

```
DISPLAY_COMMAND_LIST
```

   If you see $USER.SMART.COMMAND_LIBRARY ($USER will be replaced by the user name that you are logged into), type the following command to remove it:

```
DELETE_COMMAND_LIST_ENTRY E=$USER.SMART.COMMAND_LIBRARY
```

4. This step is to run the INSTALL_IMSMART procedure; however, an extra note of caution is required before running it. Some information will be required from you and some assumptions have been made for you in some areas. Please be sure to read ALL of this item (4) for warnings, notes and any information you will be required to supply to the procedure BEFORE beginning execution. It is suggested that you create a file connection before executing the INSTALL_IMSMART procedure so that you have a record of the dialog. To do this, type the following:

```
CREATE_FILE_CONNECTION $ECHO file_name
```

   Replace file_name with a file of your choosing. Alternatively, if you have a printer attached to your terminal, you may turn it on to record your installation dialog.

   Execute the IM/Smart installation procedure by entering:

```
CREATE_COMMAND_LIST_ENTRY E=$SYSTEM.SMART.COMMAND_LIBRARY
INSTALL_IMSMART SAUI=system_administrator_id ..
   SAUP=system_administrator_pw ..
   FQMUI=dmfqm_user_id ..
   FQMUP=dmfqm_user_pw
```

Replace system_administrator_id and system_administrator_pw with a currently registered IM/BASISplus user id that has IM/BASISplus system administrator (SA) privileges.

Replace dmfqm_user_id and dmfqm_user_pw with the same user id and password which you are currently using for IM/Smart's DISPLAY_DICTIONARY_REPORT utility.

When IM/BASISplus is installed, it creates one IM/BASISplus user id with system administrator (SA) privilege. The user id and password created are SAUID and SAUPW. If you wish to create your own IM/BASISplus user id with system administrator privilege, refer to the "register" command in the "DMSA" section of the IM/BASISplus System Administration for NOS/VE manual (pub 60487819) for more information.

When the procedure begins execution, you will be taken through a dialog mode session in order to obtain information necessary for the upgrade. At each dialog mode prompt, you will have the option of exiting without performing the install. Following are the steps you will be taken through and the information you will need to know before beginning execution.

a. You will be asked the following question:

```
Are you a new IM/Smart customer?
```

   If you are installing IM/Smart for the first time at your site, you are performing an initial install, not an upgrade. You should answer 'Q' to quit and proceed to the IM/Smart section in the "Special Product INITIAL Installation Tasks" chapter. If any previous version of IM/Smart is currently installed at your site, answer 'N' for no.

b. The procedure will then determine whether or not the two databases which belong to IM/Smart are listed in your IM/BASISplus Authority Database (ADB). The first database is IMSA739 - the IM/Smart product database. The second database is IMSACME - the IM/Smart sample database.

   For IMSA739, if the entry is found in the Authority Database, the procedure will proceed to the next step. If it is not found, you will be told that it is missing, and asked if it is missing because the IM/BASISplus installer chose the "clean Authority Database" option when installing IM/BASISplus rather than restoring the existing IM/DM Authority Database.

NOTE

This will only apply when upgrading from IM/Smart at L766, as these were IM/DM versions of IM/Smart. This does not apply to IM/Smart at L765 or L780, because it is an IM/BASISplus version of IM/Smart.

If your site is upgrading from L766, you must find out which ADB option the IM/BASISplus installer chose when installing IM/BASISplus. If you say that the entry is missing because the "clean Authority Database" option was chosen then the procedure will make the entry for you later in the execution.

NOTE

This is accomplished by creating a database entry in the IM/BASISplus ADB which points to the IM/DM Definition Database file. The IM/DM Definition Database file is then upgraded to IM/BASISplus.

If you say that it is missing for some other reason, the procedure will terminate without performing the install.

For IMSACME, if the entry is found in the Authority Database, the procedure will proceed to the next step. If it is not found, you will be told that it is missing, and asked if it is missing because the IM/BASISplus installer chose the "clean Authority Database" option when installing IM/BASISplus rather than restoring the existing IM/DM Authority Database.

NOTE

This will only apply when upgrading from IM/Smart at L766, as these were IM/DM versions of IM/Smart. This does not apply to IM/Smart at L765 or L780, because it is an IM/BASISplus version of IM/Smart.

IMSACME may also be missing because your site no longer had a need for this sample database and had erased the database. You must determine why the IMSACME entry is missing from your Authority Database. If you say that the entry is missing because the "clean Authority Database" option was chosen when upgrading from L766, then the procedure will make the entry for you later in the execution.

NOTE

This is accomplished by creating a database entry in the IM/BASISplus ADB which points to the IM/DM Definition Database file. The IM/DM Definition Database file is then upgraded to IM/BASISplus.

If you say that it is missing because you have erased it at your site, no action will be taken for IMSACME, it will remain erased, and the INSTALL_IMSMART procedure will proceed to the next step. If you say that it is missing for some other reason, the procedure will terminate without performing the install.

NOTE

WARNING: In order for these ADB entries to be made correctly, your database

files must be in the same subcatalog that they were originally installed in and you must have left the file names the same. If this is not the case at your site, then this step will not work. At this point you can do one of the following things before running the INSTALL_IMSMART procedure:

1. Make the entry in the ADB yourself. See the following manual for guidance:

   Manual: NOS/VE Upgrading from IM/DM to IM/BASISplus Usage
   Publication Number: 60487823
   Chapter: Preparing to Use IM/BASISplus
   Section: Upgrading an IM/DM Database to an IM/BASISplus Database

2. Call the Control Data Support Operations Support Hotline for help. See page 1-7 for more information on contacting the hotline

If you have completed the dialog mode portion of the procedure without exiting, you will then be prompted as follows:

```
Enter a user id with DBA authorization for databases IMSA739 and
IMSACME:
Enter its corresponding user password:
```

In response to the prompts, enter the name of an IM/BASISplus user id and its password which is authorized as a database administrator for databases IMSA739 and IMSACME. If you do not already have such a user id, you may create one using the DMSA module. To do this, type in the following commands:

```
DMSA UID=system_administrator_id ..
     UPW=system_administrator_pw  AIDS=NO
  REGISTER  UID=dmdba_user_id UPW=dmdba_user_pw
  AUTHORIZE UID=dmdba_user_id DB=IMSA739.FQMSA1 PRIV=(DBA)
  AUTHORIZE UID=dmdba_user_id DB=IMSACME.FQMA   PRIV=(DBA)
  EXIT
```

Use the system_administrator_id and system_administrator_pw that you used when you executed INSTALL_IMSMART.

NOTE

The IM/Smart product database name is IMSA739. This name was assigned when IM/Smart was first released at level 739 and remains unchanged for NOS/VE 1.7.1 L803. IMSACME is the name of the database which is used by the FTNDEMO_DICTIONARY and COBDEMO_DICTIONARY sample dictionaries. This name was assigned when IM/Smart was first released at level 739 and remains unchanged for level 780.

The INSTALL_IMSMART procedure executes interactively and makes several calls to IM/BASISplus modules. You will see the calls and other informative messages as the procedure executes. Output will be written to $USER.SAF$INSTALL_LIST.

When the INSTALL_IMSMART procedure has completed execution, it will have done the following:

a. If either your IMSA739 or IMSACME database entry was missing from the IM/BASISplus Authority Database because you have a "clean" Authority Database for IM/BASISplus, the procedure will have registered and authorized all the appropriate IM/Smart user ids.
b. If your IMSA739 or IMSACME database entry was missing from the IM/BASISplus Authority Database because you have a "clean" Authority Database for IM/BASISplus, the procedure will have created the entry in the ADB for you.
c. Used the DMDBA module to regenerate all system records for databases IMSA739 and IMSACME (if IMSACME has not been erased at your site).
d. Created a next cycle of the file $USER.SMART.COMMAND_LIBRARY with a new DISPLAY_DICTIONARY_REPORT utility. This file contains procedure SAP$DISPLAY_DICTIONARY_REPORT3 with the correct dmfqm_user_id and dmfqm_user_pw as specified on the call to the INSTALL_IMSMART procedure.
e. Loaded new copies of the form libraries for the FTNDEMO_DICTIONARY and COBDEMO_DICTIONARY sample applications. The form libraries were loaded as next cycles of files $USER.SMART.FTNDEMO_FORMS and $USER.SMART.COBDEMO_FORMS.

NOTE

As mentioned in item "c" above, the system records for the IMSACME database are regenerated by the installation procedure. Any application programs which use this database (the FTNDEMO_DICTIONARY and COBDEMO_DICTIONARY dictionaries use this database) must be re-compiled.

If you created a file connection before executing the INSTALL_IMSMART procedure, you may want to delete it now that you have completed execution of the procedure. To do this, type the following command:

```
DELETE_FILE_CONNECTION $ECHO file_name
```

Similarly, if you deleted the $USER.SMART.COMMAND_LIBRARY list entry from your command list before executing the INSTALL_IMSMART procedure, you may now want to add it back in. To do this, type the following command:

```
CREATE_COMMAND_LIST_ENTRY E=$USER.SMART.COMMAND_LIBRARY
```

5. For security purposes, you may want to delete file $SYSTEM.SMART.COMMAND_LIBRARY. The procedure INSTALL_IMSMART in this file contains all the IM/BASISplus user ids and passwords used by

IM/Smart.

You may also want to delete file $SYSTEM.SMART.INITIAL_DATABASE and $SYSTEM.SMART.SAMPLE_SCREENS to free up disk space. These files are only used during the installation process and take up approximately 6 megabytes of space.

Deletion of any of the above files must take place at the system console.

For security purposes, you may from time to time need to change the IM/BASISplus user id and password for DISPLAY_DICTIONARY_REPORT. See the "Updating Validations for IM/Smart's DISPLAY_DICTIONARY_REPORT" section in the IM/Smart portion of the "Special Product INITIAL Installation Tasks" chapter for more information.

NOTE

To enable on-site upgrading of the IMSA739 database, the automatic detection of modification to IMSA739's User Data Models has been disabled; therefore, it is your responsibility not to modify IMSA739's User Data Models. If these User Data Models are changed, no warning will be issued, and IM/Smart will not function correctly.

Upgrading from IM/Smart 1.1 at NOS/VE 1.5.3 L766

1. In order to complete the upgrade to IM/Smart 1.2 at NOS/VE 1.6.1 L780, you must delete certain subcatalogs and their contents. This will assure that users do not accidentally use command_libraries that are only valid with L766.

   a. First, delete subcatalog $SYSTEM.SMART_L766 and all of its contents by typing the following command from the system console:

   ```
   DELETE_CATALOG CATALOG=$SYSTEM.SMART_L766 ..
        DELETE_OPTION=CATALOG_AND_CONTENTS
   ```

   b. Next, log into the user name where the IM/Smart 1.1 at NOS/VE 1.5.3 L766 database files and form libraries were installed. Delete subcatalog $USER.SMART_L766 and all of its contents by typing the following command:

   ```
   DELETE_CATALOG CATALOG=$USER.SMART_L766 ..
        DELETE_OPTION=CATALOG_AND_CONTENTS
   ```

2. All IM/Smart users must remove the following command from their prologs:

   ```
   INCLUDE_FILE $SYSTEM.SMART_L766.SETUP_SMART
   ```

3. All DISPLAY_DICTIONARY_REPORT users must change the following command in their prologs:

```
CREATE_COMMAND_LIST_ENTRY E=$catalog.SMART_L766.COMMAND_LIBRARY
```

to:

```
CREATE_COMMAND_LIST_ENTRY E=$catalog.SMART.COMMAND_LIBRARY
```

Replace $catalog with the master catalog where the IM/Smart database files and form libraries are installed.

Mail/VE Version 2 (NOS/VE)

There are special instructions for installing Mail/VE Version 2 on your NOS/VE 1.7.1 L803 system. Follow the instructions in the section titled Upgrading Mail/VE to NOS/VE 1.7.1 L803 to complete the installation of Mail/VE on your system.

If you wish to convert your Mail/VE system to one that includes multiple MTA support, follow the instructions in the section titled Multiple MTA Installation of Mail/VE.

Upgrading Mail/VE to NOS/VE 1.7.1 L803

1. Update the Mail/VE database files by executing the following commands from the system console:

```
CREATE_COMMAND_LIST_ENTRY ..
  E=$SYSTEM.MAILVE_V2.MAINTENANCE.COMMAND_LIBRARY
MANAGE_MAIL_DIRECTORY  MTA=mta_name
  INCLUDE_FILE FILE=directives_file name
QUIT
```

   Replace mta_name with the name of the mta you are upgrading if you have multiple mtas. Replace directives_file_name with the name of the file you supplied on page 7-11

   If errors are displayed, use the editor to alter the directives which cause the errors. Repeat this step.

2. Activate the Mail/VE MTA server and gateway by executing the following commands from the system console:

```
ACTIVATE_MAILVE  [ MTA=<mta name> ] ...

ACTIVATE_MAIL_GATEWAY  [ MTA=<mta name> ] ...
```

   Replace mta_name with the name or names of the mtas for your site.

3. Use the editor to remove the SCL comment character from the ACTIVATE_MAILVE and ACTIVATE_MAIL_GATEWAY commands in the file $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG.

4. Perform a selection of Mail/VE operations to verify Mail/VE can access the upgraded database files.

Multiple MTA Installation of Mail/VE

Multiple MTAs may be installed on a single host. This may be desirable or necessary where Mail/VE users of the same CYBER host belong to different private management domains, or are in different functional groups such as university students and staff. It should also be noted that public mailboxes cannot be shared across MTAs.

To install multiple MTAs on your system perform the following instructions.

1. Preparation.

   a. Plan how many MTAs you wish to maintain and how you want to divide your current Mail/VE database users. Note that if you wish to send mail between MTAs, you must have organization information defined for each MTA.

   b. Select names for your MTAs.

   c. Select the MTA application names. These will be the destination_type names on the CREATE_ROUTE commands for each MTA on the host. This name could be the same as the title on the CREATE_ROUTE command.

   d. Plan which users are to use which MTA.

   e. Refer to the appendix titled Upgrade from Single MTA to Multiple MTAs in the Mail/VE Version 2 Administration manual (60464515) for an example of upgrading your system to multiple MTAs.

2. Create your current directives file by entering the following commands:

```
CREATE_COMMAND_LIST_ENTRY ..
  E=$SYSTEM.MAILVE_V2.MAINTENANCE.COMMAND_LIBRARY
MANAGE_MAIL_DIRECTORY
  GENERATE_DIRECTORY_UPDATE O=$LOCAL.DIRECTIVES_FILE ..
    INCLUDE_ALL=FALSE
  QUIT
```

3. Copy the file DIRECTIVES_FILE to a separate new file for each MTA you wish to create. At this point, all MTA directive files are identical, for example:

```
COPY_FILE I=$LOCAL.DIRECTIVES_FILE O=$SYSTEM.MTAONE
COPY_FILE I=$LOCAL.DIRECTIVES_FILE O=$SYSTEM.MTATWO
```

4. Edit each of the MTA files you just created and modify them in the following ways:

   a. Change the title from the default MTA to the new MTA name.

   b. Update the UPDATE_ROUTE directives. Add UPDATE_ROUTE directives for the other MTAs.

c. Change the 'TITLE' for any organizations that are moving to a new MTA.

d. Delete all UPDATE_MAILBOX and UPDATE_DISTRIBUTION_LIST directives for mailboxes that are moving to a new MTA.

e. Make sure that all mailbox names for this MTA are valid, that is, have organization units and organization names for this MTA.

f. Make sure that your distribution lists contain only mailboxes that reside on this MTA.

g. Check the updated file for general errors by entering the following command:

```
FORMAT_SCL_PROCEDURE I=mta_file_name O=new_mta_file_name
```

Replace mta_file_name with the name of the mta file you are editing. Replace new_mta_file_name with a new file name for the MTA you are updating.

5. It is recommended that you define the MAILVE_DOMAINS validation field for your users. This will avoid confusion when users enter mail as it will define their default MTA.

```
ADMINISTER_VALIDATIONS
  USE_VALIDATION_FILE VF=validation_file ..
    PW=password
  MANAGE_USER_FIELDS
    CREATE_NAME_FIELD  FN=MAILVE_DOMAINS ..
      D='list_of_mtas' NON=1
    QUIT
    FOR EACH USER IN $USER_LIST DO
      CHANGE_USER USER
        CHANGE_MAILVE_DOMAINS VALUE=mtaname
      END_CHANGE_USER
    FOREND
  QUIT
```

Replace validation_file with name of the validation file for your site. Replace password with the password of your validations file. Replace list_of_mtas with the description of your site's mtas. Replace mtaname with the default MTA for the set of users you are defining.

NOTE

Control Data recommends that you set the CREATE_NAME_FIELD parameter NON (number_of_names) to the default of 1. If you change this default, the CHANGE_MAILVE_DOMAINS command will have the parameter ADD rather than the parameter VALUE.

---

6. Deactivate mail by entering the following command from the system console:

```
DEACTIVATE_MAILVE
```

7. Install mail on each MTA by entering the following command one time for each MTA:

```
INSTALL_MAIL MTA=mta_name C='country' ..
  AD='administrative_domain' PD='private_domain' ..
  DEFAULT_MTA=boolean
```

All parameters are required except PRIVATE_DOMAIN. Refer to the Mail/VE Version 2 Administration manual (60464515) for additional information about selecting these parameter values.

Replace mta_name with the name by which other hosts refer to this installation of Mail/VE. The name chosen should start with the three characters MTA and be unique among all interconnected systems. The MTA name may be up to 12 characters in length. The MTA name must be composed of numeric characters and upper-case alphabetic characters. No special characters are allowed.

Replace private_domain with the name of the private domain which includes this installation of Mail/VE. The name can consist of 1 to 16 characters.

Replace administrative_domain with the name of the administrative domain to which this installation of Mail/VE is associated. The name can consist of 1 to 16 characters. If this installation of Mail/VE is not associated with an administrative domain, enter a single space as the value for the administrative domain.

Replace country with the code assigned to the country in which the site is located. Up to three characters are allowed. Refer to the Country Code appendix of the Mail/VE Version 2 Administration manual (60464515) for a list of country codes.

Replace boolean with TRUE for your default MTA and with FALSE for all additional MTAs defined on the host.

8. Create the new database directory file for each new MTA by entering the following set of commands for each new MTA:

```
MANAGE_MAIL_DIRECTORY MTA=mta_name
  INCLUDE_FILE F=mta_file_name
  QUIT
```

Replace mta_name with the name of the MTA you are creating a directory for and replace mta_file_name with the file you edited for this MTA.

9. Activate Mail/VE V2 for each MTA defined on the host. Execute the following command once for each MTA being activated:

```
ACTIVATE_MAILVE MTA='mta_name' JC=job_class
```

Replace mta_name with the name of one of your MTA.

Replace job_class with the name of the job class you wish to use for the Mail/VE gateway. The default value is the default batch job class of your system and need only be changed if your default batch job class has low priority. Control Data recommends that the job class priority be greater than Batch up to Interactive priority.

10. Update the file $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG with the additional activate commands entered in the previous step.

Network File System (NFS)

The Network File System for NOS/VE (NFS) consists of three host programs: NFS, PCNFSD, and PORTMAPPER. These programs run as three jobs. The NFS job uses the job class of NETWORK_FILE_SYSTEM which runs at priority P9. The PCNFSD job and the PORTMAPPER job use the job class PORTMAP_PCNFS which runs at priority P6. NFS requires the TCP/IP gateway or the TCP/IP communications device to be running in a CDCNET DI with both TCP and UDP protocols.

In order to upgrade the NFS application, you must:

1. Deactivate the jobs that make up the NFS product by entering the following at the system console:

```
DEACTIVATE_NFS
DEACTIVATE_PCNFSD
```

   If you are running Network Lock Manager(NLM/VE), you must enter the following command:

```
DEACTIVATE_NLM
```

   If you are running Network Information Service (NIS/VE), you must enter the following commands:

```
DEACTIVATE_YPBIND
DEACTIVATE_YPSERV
DEACTIVATE_YPPASSWDD
DEACTIVATE_YPUPDATED
```

   After all NFS related jobs have terminated, you should then take portmapper down by entering the following command at the system console:

```
DEACTIVATE_PORTMAP
```

2. To use PCNFS a spool catalog must exist where subcatalogs can be created for each PC that will be using the PCNFS print feature.

   a. Create the spool catalog by entering the following command at the system console:

```
CREATE_CATALOG C=:family.unfsve.SPOOL
```

      Replace family with the name of the family you wish to use the PCNFS print feature on and replace unfsve with the user name you wish to use the PCNFS print feature from.

NOTE

The user, :family.unfsve, must exist before the catalog can be created.

---

b. Add an entry /family/unfsve/spool/pc_host_name in the exports file.

   Replace pc_host_name with the host name of the PC in the "hosts" file.

   Repeat this step for each PC that will be using the PCNFS print feature.

3. To activate the jobs that make up the NFS product, enter the following command at the system console:

```
ACTIVATE_IPC_APPLICATIONS FAMILY=family ..
  SPOOL_CATALOG=:family.unfsve.SPOOL DEBUG=boolean
```

   Replace family and unfsve with the family and user name on which the user name and password supplied by the personal computer is validated. This parameter must be specified if the PCNFSD job is to be started. Replace boolean with either TRUE or FALSE. Set DEBUG to TRUE to gather more information on problems with NFS. The default is FALSE.

The ACTIVATE_IPC_APPLICATIONS command must be placed in the $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file for automatic activation across deadstarts. Remember to include the family parameter on ACTIVATE_IPC_APPLICATIONS if you want to use PCNFS.

Consult the NOS/VE Network Management manual (60463916) for documentation on the ACTIVATE_IPC_APPLICATION command.

NFS is a trademark of Sun Microsystems, Inc.

Network Tranfer Facility (NTF)

A new method for configuring Accessible remote systems has been introduced to NTF at release level L780.

Refer to the Network Transfer Facility Usage manual (60000628) and to the NTF Configuration Enhancement feature notes for more information.

A subproduct of Network Transfer Facility product is Dynamic Remote Job Entry. This subproduct was not loaded from the release tapes with the rest of NTF. As a result, it must be loaded now. From the system console, enter the following commands to load the DRJE subproduct:

```
INSTALL_SOFTWARE
  INSTALL_PRODUCT P=DRJE  PL=packing_list
  QUIT
```

Replace packing_list with the name specified for the packing list on page 7-3 or page 7-15, depending on whether or not you loaded the documentation files during your upgrade.

Transmission Control Protocol/Internet Protocol (TCP/IP)

This section is only applicable if you are running the NOS/VE network. The TCP/IP (Transmission Control Protocol/Internet Protocol) product consists of a CDCNET TIP and host programs FTP (File Transfer Protocol), INETD (Internet Daemon), SMTP (Simple Mail Transfer Protocol), TFTP (Trivial File Transfer Protocol), and LPD (Line Printer Daemon). The RPC/XDR interface and the PORTMAPPER Daemon are also included.

In order to use the TCP/IP applications, you must:

1. Create the INETD configuration file according to information in the TCP/IP Interface Software section in chapter 5 of the CDCNET Configuration guide (60461550). File syntax and an example are provided. The file must then be placed into the $SYSTEM.TCP_IP catalog. You should do this at the system console.

2. Ensure that the NFS job and scheduling classes have been created if the RPC/XDR interface is to be used. See the instructions in step 1 of the Network File Server(NFS) section of this chapter.

3. Define/redefine the TCP/IP communication device applications as follows:

```
MANAGE_APPLICATION_DEFINITIONS
  DEFINE_C_SOCKET
  DEFINE_FTP
  DEFINE_FTPS
  DEFINE_IPC_APPLICATIONS
  DEFINE_LPD
  DEFINE_LPDS
  DEFINE_NAME_RESOLVER DOMAIN_NAME=application ..
    NAME_SERVERS=list_of_applications ..
    TCP_SOLUTION=TCP_DEVICE
  DEFINE_NFS_TIME_SERVERS
  DEFINE_REXEC
  DEFINE_REXECS
  DEFINE_SMTP
  DEFINE_SMTPS
  DEFINE_TFTP
  DEFINE_TFTPS
QUIT
```

Replace application and list_of_applications with the appropriate values for your site. See the NOS/VE Network Management manual (60463916) for more information.

NOTE

To use the TCP/IP communications device support software, an ADD_TCPIP_ACCESS command must be added to the configuration file of each MDI or ICA II supporting TCP and UDP traffic.

4. Activate the Internet Daemon (INETD) application and the SMTP client by entering the following commands at the system console:

```
ACTIVATE_INETD
ACTIVATE_SMTP
```

   If you wish to use RPC/XDR and have NOT ordered NFS, you should also activate the Portmapper Daemon by entering the following command:

```
ACTIVATE_PORTMAP
```

5. The FTP, LPD, SMTP, TFTP servers are activated automatically via INETD.

   The ACTIVATE_INETD, ACTIVATE_PORTMAP, and ACTIVATE_SMTP commands should also be placed in the $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG file for automatic activation across deadstarts. Replace ACTIVATE_PORTMAP with ACTIVATE_IPC_APPLICATIONS if NFS is to be run.

6. The REXEC server is automatically started by the system job INTERNET_DAEMON (INETD) whenever a remote host opens a TCP/IP connection to the well known port of REXEC. In order to make REXEC known to INETD, the NOS/VE site administrator must add the following command to the file $SYSTEM.TCP_IP.INETD_CONFIGURATION:

```
DEFINE_SERVICE SERVICE=REXEC APPLICATION_NAME=OSA$REXEC_SERVER ..
  DEBUG_MODE=OFF DEBUG_MODE_INTERACTIVE=OFF INITIAL_STATE=ACTIVE ..
  PORT=512 PROTOCOL=TCP ..
  SERVICE_TASK=$SYSTEM.TCP_IP.REXEC_BOUND_PRODUCT ..
  STARTING_PROCEDURE=RXP$ACCEPT_INITIAL_CONNECTION ..
  PARAMETER_STRING='JC=job_class'
```

   Replace job_class with the job class you want REXEC jobs to be run under. The PARAMETER_STRING parameter is not necessary if you want your jobs to run under the BATCH job class. This is the default job class. If you desire to change the job class for REXEC jobs, all REXEC users must be validated for the job class specified in the above command.

   The site administrator must also add the following line to the $SYSTEM.TCP_IP.SERVICES file:

```
REXEC 512/TCP
```

Consult the NOS/VE Network Management manual (60463916) for documentation on the ACTIVATE_INETD, ACTIVATE_PORTMAP, and ACTIVATE_SMTP commands.

Consult the CDCNET Configuration guide (60461550) for further information on TCP/IP configuraiton, hostse, and services files.

VX/VE

Perform the following instructions to upgrade VX/VE. There are three varieties, each supporting a different number of users. In the installation procedure below, you must supply the subproduct name of the variety you are going to install. The possible varieties are:

- VX_UNLIMITED_USER
- VX_32_USER
- VX_64_USER

Only one variety is included with your order. You can determine which one by examining the output of the DISPLAY_INSTALLED_SOFTWARE subcommand of the INSTALL_SOFTWARE utility. The display shows the following message below the subproduct name for your particular variety.

```
(Currently not installed)
```

1. Back up any site local catalogs and files located in the catalog $SYSTEM.VX.

2. Initiate the load procedure which was installed in step 9 of chapter 7 by executing the following command from the system console:

   ```
   $SYSTEM.VX.INSTALL.LOAD PL=packing_list VAFN=family VAUN=user ..
     SP=variety
   ```

   Replace packing_list with the value you supplied to the system core command SET_INSTALLATION_TAPE in step 4 on page 7-15.

   Replace family and user with the family and user name of the VX administrator. The vX administrator's home catalog must reside on a set that supports class P files.

   Replace variety with the appropriate name from the list above.

   The question: "Is this system licensed for VX/VE?" should appear. A response beginning with Y or y causes a batch job to begin which loads the necessary permanent files for VX/VE in the $SYSTEM.VX catalog. The VX/VE administrator is given READ, WRITE, EXECUTE, CYCLE and CONTROL permission on this catalog.

3. Wait for the installation batch job to complete.

   You can monitor the progress of the installation job via the active job display. When the LOAD_VX job disappears, the installation batch job is complete. This may take from a few minutes to more than an hour depending upon processor type, disk configuration, and system workload.

4. The batch job first makes a backup of the following existing $SYSTEM.VX files into a new cycle of file $USER.VX_INSTALL_BACKUP using the BACKUP_PERMANENT_FILES utility.

```
/etc/group
/etc/nodename
/etc/passwd
/etc/profile
/etc/rc
/etc/ttytype
/usr/lib/spell/spellhist   (if DWB/VX was installed)
/vx/procs/vxrc
/usr/spool        (a catalog)
/usr/mail         (a catalog)
/usr/news         (a catalog)
/usr/lib/uucp     (a catalog)
```

Restore any old files that you wish to keep (such as /etc/passwd) using the RESTORE_PERMANENT_FILES utility from a user terminal. The new version of a file must be deleted before the old version can be restored.

```
DELETE_FILE F=$SYSTEM.VX.ETC.PASSWD
RESTORE_PERMANENT_FILE L=OUTPUT
  RESTORE_FILE F=$SYSTEM.VX.ETC.PASSWD ..
  BF=$USER.VX_INSTALL_BACKUP
  QUIT
```

5. Verify the upgrade of VX/VE by logging into the VX/VE administrator's user name and executing the following command:

```
VX
```

You are now in the VX/VE environment and may issue any supported UNIX commands.

NOTE

Enter *EOI or exit to exit the VX/VE environment

X/Windows 4.1

NOS/VE 1.7.1 L803 includes X/Windows Version 4.1. This version contains the libraries required to build applications under the X Window System * and OSF/Motif ** graphical user interface. It also contains some X and OSF/Motif clients. X/Windows Version 4.1 requires the C Version 2 product.

The upgrade installation instructions are different depending on whether the site is upgrading from X/Windows 1.0 (released with NOS/VE 1.5.3) or from X/Windows 4.0 (released asynchronously in March 1991).

Because of a change in packaging for the X clients, the mass storage requirements for X/Windows 4.1 have increased from X/Windows 4.0. Under X/Windows 4.1, 30 mega-bytes of mass storage space is required for the $system.x11r4 catalog.

Upgrade from X/Windows 1.0

For sites upgrading from X/Windows 1.0, the tasks below are used to complete the installation of X/Windows 4.1.

Pre-Installation Instructions

Before installing X/Windows 4.1, X Version 1.0 header decks must be deleted from the C Version 2 product catalog. The following command can be entered from a username with $system permission:

```
DELETE_CATALOG CATALOG=$system.cv2.usr.include.x11 ..
  DELETE_OPTION=catalog_and_contents
```

These header decks may already have been deleted as a result of the installation of NOS/VE 1.5.3 L765.

C-Socket Client

X/Windows 4.1 uses the C-Socket client name for TCP/IP communications. This client must be defined in order for X and OSF/Motif client applications to function. To install this client, enter the following under the MANAGE_APPLICATION_DEFINITIONS utility:

```
DEFINE_C_SOCKET
```

If the C-Socket client is already defined, an informative error message will be issued.

See the NOS/VE Network Management manual, (publication number 60463916) for more information about installing network applications.

De-installation of X Version 1.0

Once a site has migrated to X/Windows 4.1, the X Version 1.0 product should be deleted. The application name used for X Version 1.0 should be de-installed and the X Version 1.0 product catalog should be deleted. Execute the following commands from the system console to de-install the product and delete the X Version 1.0 product catalog:

```
MANAGE_NETWORK_APPLICATIONS
  DEACTIVATE_CLIENT CLIENT=osa$x_windows ..
    TERMINATE_ACTIVE_CONNECTIONS=true
  DELETE_CLIENT CLIENT=osa$x_windows
  DELETE_CATALOG CATALOG=$system.windows  ..
    DELETE_OPTION=catalog_and_contents
  QUIT
```

Upgrade from X/Windows 4.0

PPM and VX/VE BCUs No Longer Required

For sites upgrading from X/Windows 4.0, BCU's against the Packaged Process Manager and/or VX/VE are no longer required for NOS/VE 1.6.1 L780 or more current systems. Sites that modified system or user prologs to access the correct library for C Version 2 no longer require this modification for NOS/VE 1.6.1 L780 or more current systems. Specifically, the SCL assignment 'c2f$library = $system.c.vcf$library' is no longer required.

Bitmap Directories Pre-Install Instructions

X Version 4.1 moves the delivered bitmaps from the C Version 2 install tree to the X11R4 install tree. Before installing X Version 4.1, the bitmap catalog should be manually deleted from the C Version 2 catalog tree. Execute the following command from the system console:

```
DELETE_CATALOG CATALOG=$system.cv2.usr.include.x11.bitmaps  ..
   DELETE_OPTION=catalog_and_contents
```

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Chapter 9
Component Order Installation

This chapter describes installation of NOS/VE products from a component order. A component order is one in which you are installing one or more individual product tapes by themselves after you have previously installed and are running NOS/VE. For example, if you are already running NOS/VE in production and then decide to purchase a separate CDCNET product, instructions for installing it are given in this chapter.

If tape security is on and you are upgrading from a terminal other than the system console, you must validate the user name performing the component order for RELEASE_TAPES. To do this, you must enter the following commands from the system console:

```
SYSTEM_OPERATOR_UTILITY
  ADMINISTER_VALIDATIONS
    CHANGE_USER U=user
      CHANGE_REMOVEABLE_MEDIA_ACCESS ADD=((RELEASE_TAPES (READ)))
      QUIT
    QUIT
```

Replace user with the user name where you will be installing the component order.

Step 1: Load Packing List

Before any products can be installed from your component order, you must load the packing list from the installation tape. The packing list describes the contents of the tape.

To load the packing list, you must give it a name. Choose a name which reflects the contents of the tape and is distinguishable from other packing list names.

From the system console, enter the following commands to load the packing list and display the contents:

```
INSTALL_SOFTWARE
  LOAD_PACKING_LIST PL=packing_list EVSN='evsn' T=type UV=unload_volume
  DISPLAY_PACKING_LIST PL=packing_list
  QUIT
```

Replace packing_list with any 1- to 16-character SCL name for the packing list file name.

Replace evsn with the 1- to 6-character external VSN of the first installation tape. The VSN for the tape can be found in the media number field of the external tape label. Even if your order contains multiple tapes, it is only necessary to supply the VSN of the first tape. The first installation tape contains the words FULL/PACKING LIST in the name field of the external tape label. Any additional tailored product tapes contain the words FULL/ADDITIONAL in the name field of the external tape label.

Replace type with one of the following keyword values:

MT9$6250	(for 9-track tape at 6250 cpi)
MT9$1600	(for 9-track tape at 1600 cpi)
MT18$38000	(for cartridge tape)

Replace unload_volume with the value of FALSE if you do not want your installation tape to unload after the packing list is loaded. This value defaults to TRUE.

Step 2: Load Product Tapes

You should now install the products contained on your order using the INSTALL_SOFTWARE (INSS) utility. After this step is complete, most products have been loaded from tape to your system. The next step describes special installation tasks which must be performed for certain products. Refer to step 16 on page 2-43 for additional details on the packing list and loading product tapes.

The INSTALL_PRODUCT command below requests and reads the tape and installs the products on your system.

NOTE

Your order may contain products or subproducts which are not installed automatically. Perform any special installation tasks required for these components, then use a separate INSTALL_PRODUCT subcommand to install the subproducts.

```
INSTALL_SOFTWARE
  INSTALL_PRODUCT P=ALL PL=packing_list
  QUIT
```

Replace packing_list with the 1- to 16-character SCL name of the packing list you specified on page 9-2 in step 1.

While it is possible to install products singly by specifying the product name, Control Data recommends that the P=ALL option be used, provided you have enough disk space available to load all products at the same time. This is the most efficient way of installing product software.

NOTE

If you have a shortage of disk space, you may not be able to load all products in the manner described above. In the event that you are unable to load your software in the manner described above, one of the following two methods can be used to install your system. The first method is preferrable to the second.

- Enter the INSTALL_PRODUCT command as described above, but only mount one tailored product tape at a time. Allow the batch job for that tape to finish before mounting the next tape.
- For more severe space problems, you may execute INSTALL_PRODUCT multiple times, each time specifying one or more individual product names on the P parameter. Refer to the SPMM/Vol2 for more information on how to specify products on the INSTALL_PRODUCT subcommand.

The INSTALL_PRODUCT command installs all the licensed products on your order that were not installed during the initial deadstart process. These commands install only those products which are identified as being automatically installed.

After validating your input, this command displays the installation identifier for the installation. The installation identifier is the name of the subcatalog of catalog $SYSTEM.SOFTWARE_MAINTENANCE.INSTALLATION_LOGS where information about the installation is kept. The name of the catalog is of the form INSP_packing_list_x where packing_list is the packing list name and x is a letter incremented for each execution of INSTALL_PRODUCT subcommand.

A separate job is issued for each tailored product tape from which software is installed. The system prompts you to mount the tailored product tapes as they are needed. When the prompt appears, mount the requested reel upon a NOS/VE tape drive. It is assigned and read automatically. The VSN for each requested Sape is contained in the media number field on the external tape label.

If an installation job aborts for any reason, an operator request appears at the console. Note the message displayed which includes the name of the installation job. Respond with the ACKNOWLEDGE_OPERATOR_MESSAGE operator command, look at the logs, and contact Central Software Support.

To monitor the progress of the installation, you can check for the jobs on the active job display by entering:

```
VEDISPLAY DO=ACTIVE_JOBS
```

After all installation jobs complete, execute the following to list all of the products installed:

```
INSTALL_SOFTWARE
 DISPLAY_INSTALLED_SOFTWARE
 QUIT
```

The display lists subproduct and licensed product names along with the level and date installed for each subproduct. If a subproduct of a licensed product did not install successfully, a message indicating which subproduct was not installed is displayed next to the subproduct name.

Step 3: Special Installation Tasks

Some products on your component order require additional special installation tasks after the product tapes are loaded. For example, special installation tasks are required for the CDCNET separate Products if you previously installed a BCU to CDCNET.

The following products require additional steps to complete installation. Additional steps for these products are documented in chapter 10.

NOTE

Product names that contain words in parentheses indicate that installation instructions for that product are found under the title found in the parentheses.

- BISYNC_3270_TIP (CDCNET Separate Products)
- CDCNET_NETWORK_VALIDATIONS (CDCNET Separate Products) This is part of the NETWORK_VALIDATIONS product.
- CDCNET_TPO_CONS
- HIGH_SPEED_HDLC (CDCNET Separate Products)
- MONITOR_TOOLS (CDCNET Separate Products) This is part of the REMOTE_LINE_MONITOR product.
- MODE4_TIP (CDCNET Separate Products)
- SERVICE_ACCESS_CONTROL (CDCNET Separate Products)
- SNA (CDCNET Separate Products)
- TCP_IP_TIP(CDCNET Separate Products) This is part of the TCP_IP product.
- TERMINAL_PASSTHROUGH (CDCNET Separate Products)
- VX_UNLIMITED_USER
- VX_32_USER
- VX_64_USER
- X25_TERMINAL_GATEWAY (CDCNET Separate Products)
- X29_PAD_SERVER (CDCNET Separate Products)

NOTE

If you are installing a CDCNET separate product and have not installed any CDCNET BCUs on your NOS/VE 1.7.1 L803 system, no special steps are required. You do not need to turn to chapter 10. If you are installing the TCP_IP_TIP on the released CDCNET system, you should turn to chapter 3 for additional installation steps.

Additional steps for the following products are documented in chapter 3.

- ARCHIVE_MAG_TAPE_PROCESSOR (ARCHIVE/VE)
- ARCHIVE_VE_QUEUE_MANAGER (ARCHIVE/VE)
- ARCHIVE_VE_NOS_7990
- ACCOUNTING_ANALYSIS_SYSTEM
- ACCOUNTING_UTILITIES
- C_VE
- CARTRIDGE_STORAGE_SYSTEM
- DWB_VX
- FILE_SERVER
- IM_CONTROL
- IM_FAST
- IM_SMART
- NFS
- NETWORK_TRANSFER_FACILITY
- PTF_QTF
- Removable Media Management System (RMS)
- RHFAM
- VX_VE
- X_WINDOWS
- XTF

Chapter 10
Special Product COMPONENT Installation Tasks

This chapter describes additional tasks you must perform to complete the component installation the following products:

- CDCNET Separate Products
- VX/VE

The chapter is organized alphabetically by product name. Refer to the NOS/VE 1.7.1 L803 SRB for additional details on these special products.

CDCNET Separate Products

NOTE

If you are installing a CDCNET Separate Product and have not installed a BCU to this release of CDCNET, your CDCNET Separate Product is already installed. No further installation steps are required for all Products except TCP_IP. If you are installing the TCP/IP TIP on a release system, refer to chapter 7 for instructions on completing its installation.

If you have installed one or more BCUs to this release of CDCNET and now wish to install a CDCNET separate product, you must perform the steps below. The CDCNET Separate Product software will be loaded into the catalog for the released version of CDCNET and must be moved to your currently installed CDCNET DI object library.

Before beginning the steps, note the version level of the released CDCNET software and the version level of the latest BCU that has been installed. To do this, enter the following commands at the system console:

```
INSTALL_SOFTWARE
  DISPLAY_INSTALLED_SOFTWARE P=CDCNET
  QUIT
```

The version level of the latest installed version will be labeled as ACTIVE and the released level of CDCNET will be labeled as CORRECTION BASE.

To finish the installation of your CDCNET Separate Products, perform the following steps from the system console:

1. Set your working catalog to the latest version of installed CDCNET.

```
SET_WORKING_CATALOG C=$SYSTEM.CDCNET.VERSION_vvvv
```

where vvvv is the CDCNET version level from your latest BCU.

2. Add the CDCNET Separate Product software to the CDCNET DI object library:

```
CREATE_OBJECT_LIBRARY
  ADD_MODULE L=DI_OBJECT
  COMBINE_MODULE ..
    L=$SYSTEM.CDCNET.VERSION_xxxx.DI_PRODUCTS.name
```

Replace xxxx with the released CDCNET version level, for example, 9999.

Replace name with the product name of the CDCNET Separate product to be installed, for example:

- BISYNC_3270_TIP
- CDCNET_NETWORK_VALIDATIONS (Part of the NETWORK_VALIDATIONS product)
- CDCNET_TP0_CONS
- HIGH_SPEED_HDLC
- MONITOR_TOOLS (Part of the REMOTE_LINE_MONITOR product)
- MODE4_TIP
- SERVICE_ACCESS_CONTROL
- TCP_IP_TIP (Part of the TCP_IP product)
- TERMINAL_PASSTHROUGH
- X25_TERMINAL_GATEWAY (X.3 PAD)
- X29_PAD_SERVER

If you are installing multiple CDCNET Separate Products, repeat the COMBINE_MODULE command for each CDCNET Separate Product, then enter:

```
  GENERATE_LIBRARY L=DI_OBJECT.$NEXT
  QUIT
CHANGE_FILE_ATTRIBUTES F=DI_OBJECT RA=(7,13,13)
```

3. Check the instructions provided with your latest BCU. If they indicate that it contained corrections to any of the CDCNET Separate Products just installed, re-apply the BCU.

VX/VE

VX/VE is the NOS/VE layered implementation of UNIX. There are three varieties, each supporting a different number of users. In the installation procedure below, you must supply the subproduct name of the variety you are going to install. The possible varieties are:

- VX_UNLIMITED_USER
- VX_32_USER
- VX_64_USER

Only one variety is included with your order. You can determine which one by examining the output of the DISPLAY_INSTALLED_SOFTWARE subcommand of the INSTALL_SOFTWARE utility. The display shows the following message below the subproduct name for your particular variety.

```
(Currently not installed)
```

Before installing VX/VE, you must select a NOS/VE user name to be the VX/VE administrator. If this user name is not yet defined, define it at this time. If you define a new user name, you must log into and out of the user name before continuing with the following tasks. The VX/VE adminstrator's home catalog must reside on a set that supports class P files.

VX/VE Installation

NOTE

The following names cannot be used as a NOS/VE family name if you are using C/VE or VX/VE:

BIN, DEV, ETC, FRL, INSTALL, IPC, LIB, MAINTENANCE, TMP, USR, VX.

VX and C first check the file name /xxx to determine if it is a valid family name. If it is not, VX and C assume it exists in the root directory.

Perform the following tasks to install VX/VE:

1. Execute the following command from the system console:

```
$SYSTEM.VX.INSTALL.LOAD PL=packing_list VAFN=family VAUN=user ..
  SP=variety
```

   Replace packing_list with the packing list parameter you entered on the SET_INSTALLATION_TAPE system core command in step 3 on page 2-11. (If VX/VE is being installed via the component order installation process (see chapter 9), the packing list parameter is the value you entered on the LOAD_PACKING_LIST subcommand described on page 9-1.)

   Replace family and user with the family and user name of the VX/VE administrator, and variety with the appropriate variety of VX/VE.

   The question: "Is this system licensed for VX/VE?" appears. A response beginning with Y or y causes a batch job to begin which uses INSTALL_SOFTWARE to load the necessary permanent files for VX/VE in the $SYSTEM.VX catalog. The VX/VE administrator is given READ, WRITE, EXECUTE, CYCLE and CONTROL permission on this catalog. You can monitor the batch job via the VED IJD display. When the LOAD_VX installation job disappears from the VED IJD display, the batch job is complete.

2. Wait for the installation batch job to complete.

   This may take from a few minutes to more than an hour depending upon processor type, disk configuration, and system workload.

Validation of VX/VE Users

1. Log into the VX/VE administrator's user name and execute the following command after the batch job completes:

```
VX
```

2. Users may be added to the /etc/passwd file with the ed editor as follows:

```
ed /etc/passwd
a
user::uid:gid:name:/family/user:
.
w
q
```

where

user	is the NOS/VE user name of the user being validated.
uid	is a unique user identifier between 1 and 60000.
gid	is an arbitrary group identifier between 1 and 60000.
name	is the name of the user (as in John Doe).
family	is the name of the family of the user.
/family/user	is the full VX pathname to the user's VX home ($HOME) directory.

NOTE

Enter *EOI or exit to exit the VX/VE environment.

Chapter 11
Batch Corrective Update (BCU) Installation

This chapter contains complete instructions for installing a Batch Corrective Update (BCU) to your NOS/VE 1.7.1 L803 software. The instructions apply to corrections for all software products that are described in appendix B of this IHB.

Each BCU software order contains one or more BCU documentation addenda. One addendum is included for each PSR identifier which has corrections on the BCU tape. Each addendum may contain information on dependencies, installation preparation notes, and installation wrap up notes. You are directed to review these sections of each addendum prior to beginning a BCU installation. Each addendum also contains a list of PSRs answered by the BCU.

To install the BCU, perform the installation steps as described in this chapter.

An informative message may be displayed when installing some of the corrections indicating that corrections for some or all of the subproducts of a licensed product will not be installed. The message indicates that either the released version of a subproduct has not been installed on your system or this subproduct correction has already been installed. See the job log to determine which subproducts have not been corrected.

NOTE

The BCU tape may contain corrections to multiple PSR identifiers. Although known dependencies and/or incompatibilities have been documented in the addenda for each PSR identifier, not all the corrections have been tested together.

Step 1: Prepare for Installation

This step instructs you to load the packing list from the BCU tape and determine what corrections are on the tape.

NOTE

Installation of a BCU must take place from the system console, but you may load the packing list and review the corrections at an interactive terminal instead of the system console. To do this, you must grant access to the catalog $SYSTEM.SOFTWARE_MAINTENANCE. Select a user name which will be used to load the packing list and review the correction, then enter the following commands from the system console:

```
CREATE_CATALOG_PERMIT C=$SYSTEM.SOFTWARE_MAINTENANCE ..
  FN=family U=user AM=(READ EXECUTE)
CREATE_CATALOG_PERMIT ..
  C=$SYSTEM.SOFTWARE_MAINTENANCE.INSTALLATION_DATABASE ..
  FN=family U=user AM=(ALL CYCLE CONTROL)
```

Replace family with family name and user with the user name you selected .

With this access, you can now use subcommands of the INSTALL_SOFTWARE utility to display information about what is installed on your system, see the contents of a packing list, and load new packing lists into the installation database.

To access the INSTALL_SOFTWARE utility, you must place the file $SYSTEM.OSF$BUILTIN_LIBRARY on your command list. You do this with the following command:

```
CREATE_COMMAND_LIST_ENTRY E=$SYSTEM.OSF$BUILTIN_LIBRARY
```

You should place this command in the login prolog for the user that will be performing the maintenance.

NOTE

If you choose to load the packing list and examine it from an interactive terminal, you will need to enter the SYSTEM_OPERATOR_UTILITY PRIOR to executing any INSTALL_SOFTWARE commands.

Load the Packing List

Before any corrections can be installed, you must load the packing list from the BCU tape. The packing list describes the contents of the BCU tape. To load the packing list, you must give it a name. Choose a name which reflects the contents of the tape and is distinguishable from other packing list names. Some possible names are: L780_BCU_AA, L780_CB8_PD, L780_NV0_AC.

We recommend that you write the name you use for the packing list on the external tape label. This records the correspondence between the BCU tape and the packing list file.

From the system console or your terminal, enter:

```
INSTALL_SOFTWARE
  LOAD_PACKING_LIST PL=packing_list EVSN='evsn' T=type ..
    UV=unload_volume
  QUIT
```

Replace packing_list with any 1- to 16-character SCL name for the packing list file name.

Replace evsn with the 1- to 6-character external VSN of the first installation tape. The VSN of the tape can be found in the media number field of the tape label. Even if your order contains multiple tapes, it is only necessary to supply the VSN of the first tape. The first tape contains the words COMP/PACKING LIST in the name field of the SMD label. Any additional component order tapes contain the words COMP/ADDITIONAL in the name field of the tape label.

Replace type with one of the following keyword values:

MT9$6250	(for orders written on 9-track tape at 6250 cpi)
MT9$1600	(for orders written on 9-track tape at 1600 cpi)
MT18$38000	(for orders written on cartridge tape)

Replace unload_volume with the value of FALSE if you do not want your installation tape to unload after the packing list is loaded. This value defaults to TRUE.

Determine What Will Be Corrected

You should now review the contents of the correction tape and compare this with what is installed on your system to determine what corrections will be installed. The commands below print listings of the contents of the correction tape and the software installed on your system. You may view the output directly from a terminal or save it on permanent files for access from a terminal.

Enter the following commands at the system console or your terminal:

```
INSTALL_SOFTWARE
  DISPLAY_PACKING_LIST PL=packing_list O=$LOCAL.PL
  DISPLAY_INSTALLED_SOFTWARE DO=FULL O=$LOCAL.IS
  PRINT_FILE F=($LOCAL.PL $LOCAL.IS)
  QUIT
```

Replace packing_list with the name of the packing list you assigned earlier for this BCU tape.

The DISPLAY_PACKING_LIST output indicates which subproduct corrections are present on the correction tape. The DISPLAY_INSTALLED_SOFTWARE output indicates which subproducts are currently installed on your system. These commands are documented in the NOS/VE System Performance and Maintenance Manual, Volume 2 (60463925). This output should be saved until you have completed installing all the corrections and you are satisfied with the corrections.

Step 2: Perform Pre-Installation Steps in Addenda

Examine the addenda accompanying the BCU to determine if there are any special instructions you should perform prior to installing the corrections. Each PSR identifier which has corrections on the tape has a unique addendum containing special information about the correction. Look for the sections titled Dependencies and Installation Preparation Notes. Perform any special instructions before proceeding to the next step.

Step 3: Correct Installation Tools

If there are corrections to subproduct INSTALLATION_TOOLS (PSR identifier NV0), perform the instructions in this step. Enter the following at the system console:

```
INSTALL_SOFTWARE
  INSTALL_CORRECTION PL=packing_list ..
    P=INSTALLATION_TOOLS IO=IMMEDIATE
  QUIT
```

Replace packing_list with the name of the packing list for this BCU tape. A batch job is submitted which corrects the INSTALLATION_TOOLS subproduct. The job requests the BCU tape.

NOTE

You must exit the INSTALL_SOFTWARE utility (that is, type QUIT) after performing the steps above. This ensures that the newly corrected version of the INSTALLATION_TOOLS subproduct will be used during the rest of the BCU installation.

When the correction batch job completes, you may proceed to step 4.

Step 4: Install Corrections

Install the corrections by entering the following at the system console:

```
INSTALL_SOFTWARE
  APPLY_ALL_CORRECTIONS PL=packing_list ..
    NVDT=('evsn', 'rvsn', type) IO=DEFERRED
  QUIT
```

Replace packing_list with the name of the packing list for this BCU tape.

If your BCU contains the subproduct NOSVE_MAINTENANCE, replace evsn with the external tape label and rvsn with the recorded vsn of the deadstart tape labeled earlier. Replace type with type of your deadstart tape (MT9$6250, MT9$1600, or MT18$38000). If your BCU does not contain the NOSVE_MAINTENANCE subproduct, you should omit the NVDT parameter.

A batch job is submitted which first requests the BCU tape and, if NOSVE_MAINTENANCE is being corrected, will later write the new deadstart tape. It installs all corrections not already installed. When the correction batch job completes, you may proceed.

NOTE

If you have a shortage of disk space, you may not be able to load all products in the manner described above. If you are unable to load your software, use the method described below:

- For more severe space problems, you may execute INSTALL_CORRECTION multiple times, each time specifying one or more individual product names on the P parameter. Refer to the SPMM/Vol2 for more information on how to specify products on the INSTALL_CORRECTION subcommand.

Step 5: Deadstart Your System

NOTE

If your BCU contained corrections ONLY to one or more of the following PSR identifiers, you do not need to perform this step. The subproducts related to these PSR identifiers are installed immediately and do not require a deadstart to install them.

```
AC1     CVE     PPM     VD1     VXE
```

The corrections that were installed in the previous step have not been activated for production use. To activate these corrections, you must deadstart your system.

If there were corrections to NOSVE_MAINTENANCE, load the boot components and deadstart your system using the deadstart tape created in the previous step.

If there were no corrections to NOSVE_MAINTENANCE, deadstart your system in the usual manner for your site (either from tape or disk). The instructions shown below specify a tape deadstart, however, you may deadstart from disk if there were no corrections to NOSVE_MAINTENANCE and a deadstart tape was not created in step 4.

Perform the following steps to deadstart your system:

NOTE

Executing jobs will not be recovered across the deadstart.

---

a. If a deadstart tape was created in the previous step, mount the new deadstart tape you created on the unit you will deadstart from and check its label with the console command VEDISPLAY D=TAPE_STATUS.

   If a deadstart tape was not created, proceed to the next step.

b. Enter the TERMINATE_SYSTEM command at the system console.

c. Initiate a NOS/VE deadstart with operator intervention.

d. At the Enter System Core Commands prompt, enter

```
SET_SYSTEM_ATTRIBUTE JOB_RECOVERY_OPTION 3
GO
```

e. At the NOS/VE RECONFIGURATION MENU, enter GO.

f. The next menu which appears gives you a number of system activation and installation choices, and the system header now matches the value shown in the OPERATING SYSTEM (NVO) addendum accompanying the BCU. Examine the menu.

Deferred Corrections

If there are any deferred corrections to install, an option 4 is shown on the menu allowing you to install deferred products. Choose option 4. After the deferred corrections are installed, another menu appears to determine if the system should be activated for production or system console usage only. Activate the system for system console usage only by choosing option 2.

No Deferred Corrections

If there are no deferred corrections, the menu only contains three choices. Choose option 2 to activate the system for system console usage only.

System activation is complete when you see the SYSTEM ACTIVATION COMPLETE message.

Step 6: Perform Wrapup Steps

Examine the addenda accompanying the BCU to determine if there are any special steps you need to perform to complete the installation of the corrections. These special steps are found in the Installation Wrapup Notes section of the addenda. Perform the instructions in those sections now.

Step 7: Activate System for Production

If your BCU contained corrections to NOSVE_MAINTENANCE, you must first establish and commit your new system to disk using your new deadstart tape. You accomplish this by using the ESTABLISH_DISK_BASED_SYSTEM and COMMIT_NEW_SYSTEM subcommands of the MAINTAIN_DEADSTART_SOFTWARE utility. See the Deadstart File Software chapter of the SPMM/Vol2 for details on this process. During the subsequent disk deadstart, your system is activated for production use.

If your BCU did not contain corrections to NOSVE_MAINTENANCE, a tape was not produced as a result of step 4 of this chapter. You may activate your system for production now by entering the following command at the system console:

```
ACTIVATE_PRODUCTION_ENVIRONMENT
```

Correction Process Notes

1. The INSTALL_SOFTWARE utility does not re-install the correction to a subproduct if the installation database directory indicates that the subproduct has already been corrected. This saves installation time. The names of subproducts which are skipped are displayed in the job log at the console and captured in the COMMAND_LOG file in the installation identifier catalog for subproducts which are corrected. If you want to force the installation of a correction to a subproduct which the directory says has already been installed, set the parameter FORCE_REINSTALL=TRUE on the INSTALL_CORRECTION subcommand of the INSTALL_SOFTWARE utility. Refer to the Installation Software chapter of the SPMM/Vol2.

2. All installations are done in a deferred fashion except where the nature of the product(s) being corrected require it to be immediate. Corrections which are installed as deferred are not activated for production use until the proper deferred product activation menu option is selected on a subsequent deadstart. Corrections which are installed as immediate become active upon successful completion of the correction batch job.

3. Before a subproduct correction can be installed, the installation database directory must indicate that the release level of the subproduct has been previously installed. If the directory does not indicate this, the subproduct correction is not installed. The names of subproducts which are skipped are displayed in the job log at the console and captured in the COMMAND_LOG file in the installation identifier catalog.

4. If a correction batch job should abort for any reason, an operator action request appears at the console. Note the message displayed which includes the name of the correction batch job. Respond with the ACKNOWLEDGE_OPERATOR_MESSAGE operator command, look at the logs and note the error, then contact Central Software Support.

5. If you have multiple BCU tapes to install, you can install the corrections from each tape together and avoid multiple system deadstarts. You can load and examine all packing lists together, then execute the install commands sequentially to avoid any conflicts between the correction jobs. If a subproduct is corrected on more than one of the tapes, install only the latest tape or install the earliest tape first, then the later one.

Withdrawing a BCU

To withdraw a BCU in order to return to a previous BCU or release level, you should do the following:

1. Use the DISPLAY_INSTALL_SOFTWARE command to display the current level for all products in your system.

```
INSTALL_SOFTWARE
  DISPLAY_INSTALLED_SOFTWARE O=$local.is
QUIT
```

2. Examine $LOCAL.IS to determine which subproducts have changed since the installation of the release level of the system. Withdraw these changes by re-installing the released version of all of those subproducts. Use the INSTALL_PRODUCT command with the FORCE_REINSTALL parameter set to TRUE.

```
INSTALL_SOFTWARE
  INSTALL_PRODUCT PL=release_packing_list ..
    P=(list_of_products_modified_by_any_BCU) FR=TRUE
QUIT
```

   Replace release_packing_list with the packing list of your NOS/VE 1.7.1 L803 release system.

NOTE

Be sure to read the special installation instructions for any product which has them. It may be necessary to repeat some portion of these instructions. For example, you must specify the installation path for IM/BASISplus again, if it is not to be installed on family NVE.

NOTE

If any of these products were installed as a component order, you must perform the steps to install the component order once more. Repeat the steps using the packing list for the component order. (An earlier BCU is not a component order.

---

3. If one of the subproducts withdrawn was NOSVE_MAINTENANCE, then use MAINTAIN_DEADSTART_SOFTWARE to build a new NOS/VE deadstart tape in order to complete the withdrawal of the BCUs. If not, then skip to step 5.

```
MAINTAIN_DEADSTART_SOFTWARE
  GENERATE_VE_DEADSTART_CATALOG ..
    CONFIGURATION_FILES_CATALOG=configuration_catalog
  CREATE_VE_DEADSTART_TAPE ..
```

```
DEADSTART_CATALOG=$SYSTEM.SITE_OS_MAINTENANCE.Lxxx.DEADSTART_CATALOG
..
    EXTERNAL_VSN='evsn_of_new_deadstart_tape' ..
    RECORDED_VSN='rvsn_of_new_deadstart_tape'
  QUIT
```

For more documentation on the INSTALL_SOFTWARE and the MAINTAIN_DEADSTART_SOFTWARE utilities and their commands, refer to the NOS/VE System Performance and Maintenance Manual Volume 2, Publication number 60463925.

4. Enter TERMINATE_SYSTEM and deadstart using the NOS/VE deadstart tape you created. Be sure to load the NOS/VE boot components from this tape before deadstarting NOS/VE.

NOTE

Executing jobs will not be recovered across the deadstart because a different level of deadstart software will be used.

---

5. The system is now at the released level. To return to the BCUs which were in effect prior to the one that was withdrawn, re-install them now.

Chapter 12
QCU and CCU Installations

This chapter contains complete instructions for installing a Quick Corrective Update (QCU) or a Code Corrective Update (CCU) to your NOS/VE 1.7.1 L803 software.

A QCU is a single correction to a single product and a CCU consists of multiple corrections to a single product. The installation process for both types of correction packets is the same.

The QCU and CCU process extends the current NOS/VE priority PSR support process by providing sites with a method of installing, withdrawing, and tracking corrective code associated with priority PSRs. This service is provided through a utility called MANAGE_FIELD_CHANGES(MANFC).

The MANAGE_FIELD_CHANGES utility provides an analyst with a set of commands that allow manipulation of a packet of corrective code that has been retrieved from Control Data via some electronic means (for example network or dialup).

Corrective code packets contain code generated in response to a priority PSR and are identified by the PSR identifier and system level. (For example, NV09652_L780AC is the name of the corrective code packet for PSR NV09652 at level 780AC.)

The process to install and withdraw a correction packet is described in the remainder of this chapter.

For additional information on the installation of QCUs and CCUs, refer to the SPMM/Vol2.

Installation of a QCU or CCU

This section describes the steps necessary to install a correction packet.

1. Access the Arden Hills Data Center.

   Corrective code packets reside in a special catalog on the Customer Information System at the Arden Hills Data Center. This system can be accessed by the following means:

   - the CDCNET connection DSB
   - Dialup Access via a rotary connection 612-482-6000
   - TELENET access via entry 6120026000
   - Redi-Access

   Once connected, the network path name is DSB, the user/password is SUPPORT/REMOTE, the family is DSB.

   After establishing a connection to DSB, the user is provided with a summary of the correction packets that are available, the base system against which the correction was constructed, and the time required to transfer the packet at a 1200 baud rate.

2. Pick Up the Corrective Code Packet.

   Code packets may be moved from the Arden Hills system to the customer's system in whatever way is most convenient, provided the file attributes of the transferred file are RT=V and FC=FILE_BACKUP. If an attempt is made to install a correction from a file with incorrect attributes, MANAGE_FIELD_CHANGES will detect the situation and provide an informative message. It will then be necessary to reload the correction file with the correct attributes before attempting to continue.

   In situations where the customer site is not equipped for any type of file transfer, a tape copy of the corrective code packet can be provided. The installation mechanism (MANFC) accepts either medium.

3. Install the correction by entering the following commands from the system console.

NOTE

The command RESET_ENVIRONMENT may be issued prior to the INSTALL_FIELD_CORRECTION command to remove any stale QCU information. It should be noted that issuing this command will remove any previously installed QCUs.

```
MANAGE_FIELD_CHANGES
  INSTALL_FIELD_CORRECTION ..
    CI=correction_identifier CFP=correction_file_path
  GENERATE_CORRECTION_SYSTEM
  QUIT
```

Replace correction_identifier with the identifier associated with the correction you wish to add to the system. It is always the PSR identifier.

Replace correction_file_path with the name of the file that contains the correction packet file you transferred from Control Data's system.

After you enter the INSTALL_FIELD_CORRECTIONS command, you will be prompted to enter a system sub-identifier. You may enter any character. This character will be appended to your QCU as a way for your site to distinguish between your QCUs.

4. To display information on the correction packet, you may issue the following commands from the system console. $SYSTEM.OSF$BUILTIN_LIBRARY must be in your command list.

```
MANAGE_FIELD_CHANGES
  DISPLAY_CORRECTION CI=correction_identifier
  QUIT
```

Replace correction_identifier with the correction packet identifier you wish to obtain information about. This is also the PSR identifier.

5. If you wish to create a deadstart tape with this correction, perform the instructions in this step. You may wish to establish the system to disk without creating a deadstart tape. If this is the case, you may proceed to the next step without performing the instructions here. You should perform at least one of the next two steps.

   To create a new deadstart tape, enter the following command:

```
MANAGE_FIELD_CHANGES
  GENERATE_DEADSTART_TAPE EVSN='evsn' RVSN='rvsn' T=type
  QUIT
```

   Replace evsn with the external VSN of the new deadstart tape and replace rvsn with the recorded VSN of the new deadstart tape. Replace type with one of the following keyword values:

MT9$6250	(for orders written on 9-track tape at 6250 cpi)
MT9$1600	(for orders written on 9-track tape at 1600 cpi)
MT18$38000	(for orders written on cartridge tape)

6. If you wish to establish your new system to disk, perform the instructions in this step.

   Enter the following commands to establish your new system to disk.

```
MANAGE_FIELD_CHANGES
  ESTABLISH_CORRECTION_SYSTEM
  COMMIT_CORRECTION_SYSTEM
  QUIT
```

You may use the MANAGE_FIELD_CHANGES subcommand DISPLAY_SCOREBOARD at any time to display information relative to your system's correction state.

Withdrawal of a QCU or CCU

This section describes the steps necessary to withdraw a correction packet.

1. Enter the following commands from the system console:

```
MANAGE_FIELD_CHANGES
  WITHDRAW_FIELD_CORRECTION CI=correction_identifier
  GENERATE_CORRECTION_SYSTEM
  QUIT
```

2. If you wish to create a deadstart tape after withdrawing this correction, perform the instructions in this step. You may wish to establish the system to disk without creating a deadstart tape. If this is the case, you may proceed to the next step without performing the instructions here. You should perform at least one of the next two steps.

   To create a new deadstart tape, enter the following command:

```
MANAGE_FIELD_CHANGES
  GENERATE_DEADSTART_TAPE EVSN='evsn' RVSN='rvsn' T=type
  QUIT
```

   Replace evsn with the external VSN of the new deadstart tape and replace rvsn with the recorded VSN of the new deadstart tape. Replace type with one of the following keyword values:

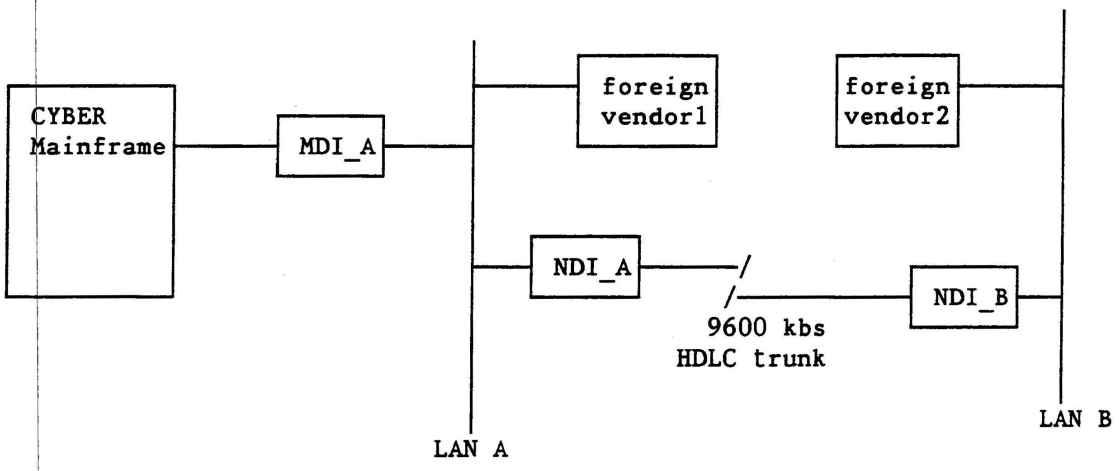
MT9$6250	(for orders written on 9-track tape at 6250 cpi)
MT9$1600	(for orders written on 9-track tape at 1600 cpi)
MT18$38000	(for orders written on cartridge tape)

3. If you wish to establish your new system to disk, perform the instructions in this step.

   Enter the following commands to establish your new system to disk.

```
MANAGE_FIELD_CHANGES
  ESTABLISH_CORRECTION_SYSTEM
  COMMIT_CORRECTION_SYSTEM
  QUIT
```

Appendix A
FTAM Interoperability with Foreign Vendors



This document details what must be done to configure CDCNET and NOS/VE such that OSI communication can be established with foreign vendors.

Assumptions:

- The MAC address of the CYBER mainframe is 080025c48079(16).
- The MAC address of MDI_A is 0800253000ab(16).
- The MAC address of NDI_A is 080025300557(16).
- The MAC address of NDI_B is 0800253000b3(16).
- The MAC address of Foreign Vendor1 is 080020016354(16).
- The MAC address of Foreign Vendor 2 is aa0004002a12(16).
- The subnet ID of LAN A is a00f(16).
- The subnet ID of the HDLC trunk is 0123(16).
- The subnet ID of LAN B is 0201(16).
- The device specific host subnet ID of the NOS/VE system is 0003(16).

Case 1:

The first case establishes communication between a NOS/VE host and a foreign vendor on the same local area network (LAN). In this example, the OSINET style of addressing is used (See examples that follow for format.). This address style has been used successfully in a multi-vendor environment. It is not necessary to use a common address style if each vendor in a domain can configure the other vendor's address prefix and address length.

For more information regarding DI configuration in a multi-vendor environment, refer to the Advanced Configuration Concepts section of the CDCNET Configuration Guide (60461550).

To setup the configuration detailed above, changes must be made to the NOS/VE host, the channel-connected MDI (or ICA), and to FOREIGN VENDOR 1. The relevant software commands are explained below.

CYBER Mainframe:

The addresses of foreign vendors need to be entered into the local directory and the NOS/VE FTAM responder must be initiated. Activation of the responder must be done from the system console. Adding the OSI addresses into the local directory may be done from any user who has network application management privileges.

The title and address of each foreign vendor must be added into the local host's directory. The user of FTAM/VE will specify a host title when attempting to create a connection to a FTAM responder. The title and address for a connected NOS/VE responding system does not need to be added into the local directory since the ACTIVATE_FTAM_RESPONDER command registers the title for the system automatically.

The NOS/VE FTAM initiator will use the host value supplied by the user to obtain the corresponding address for the remote host. In order for the FTAM initiator to find a foreign host, the title and address for the non-CDNA remote host must be manually registered in the directory on the local system using the ADD_OSI_ADDRESS command.

In this example, the title and address for FOREIGN VENDOR 1 is added into the local directory. Since the title and address information is not retained across deadstarts, it would be beneficial to place the ADD_OSI_ADDRESS command into the system file $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG

```
ADD_OSI_ADDRESS TITLE=OSISUN ..
  NETWORK_ADDRESS='4700040034A00F08002001635400' ..
  TRANSPORT_SELECTOR='4D4853' ..
  SESSION_SELECTOR='01' ..
  PRESENTATION_SELECTOR='6674616D'
```

The following command is used to initiate the NOS/VE FTAM responder system job. In this example, the session selector and presentation selector for the NOS/VE FTAM responder will be 01, the default value. The transport selector must be an integer value in the range 1..999 or 3001..12335. The transport selector for the NOS/VE FTAM responder in this example will be 0001. Again, since this activation is required after every deadstart, it would be beneficial to place this command into the system file $SYSTEM.PROLOGS_AND_EPILOGS.NETWORK_ACTIVATION_EPILOG

```
ACTIVATE_FTAM_RESPONDER TITLE='CYBER_FTAM' TRANSPORT_SELECTOR=1
```

The following command is used to determine the system identifier for the NOS/VE host:

```
DISPLAY_NAM_ATTRIBUTES DISPLAY_OPTION=SYSTEM_IDENTIFIER
```

MDI_A:

In the configuration file for MDI_A, it is necessary to statically configure the next system that is to receive the data. In this case, it also happens to be the final destination. The ADDRESS_PREFIX is the NSAP address of the destination, and the NEXT_HOP information details the network ID of LAN A and the MAC address of the destination system.

```
ADD_NON_CDCNET_ADDRESS_PREFIX ..
  ADDRESS_PREFIX='4700040034A00F08002001635400' ..
  NEXT_HOP=((0A00f(16), '080020016354'))
```

It is recommended that a DEFINE_VE_INTERFACE be done for all channel connected devices, but it is only mandatory if there are two or more such devices. For this example, it is sufficient to include a command that provides a unique network identifier (duplicate network IDs in a single catenet causes routing problems). If only one channel connected device exists for the host, and this command is not entered, the host network ID specified in the file $SYSTEM.NETWORK.CONFIGURATION will be used.

```
DEFINE_VE_INTERFACE NETWORK_IDENTIFIER=3
```

If foreign vendor 1 can configure the default CDCNET NSAP style of addressing, it is not necessary to use the CHANGE_CDCNET_ADDRESS_PREFIX (CHACAP) command. The default CDCNET NSAP address prefix is '39840F01BB7B0000000000' followed by a fixed format nine byte field. (See the CDCNET Configuration guide (60461550)for more information.)

If foreign vendor 1 cannot configure the default CDCNET NSAP style of addressing, it is necessary to use the CHANGE_CDCNET_ADDRESS_PREFIX (CHACAP) command to define the address format to be used by all communicating devices in the domain. The CHACAP command used in this case is:

```
CHANGE_CDCNET_ADDRESS_PREFIX ADDRESS_PREFIX='4700040034' ..
  ADDRESS_SIZE=14
```

If the CHANGE_CDCNET_ADDRESS_PREFIX command was necessary, the following NETOU command will look as such:

```
nou/SENC 'DISNCAP' MDI_A
```

FROM MDI_A NonCDCNET NSAP ADDRESS PREFIXES

NonCDCNET NSAP address prefix	Subnet ID	Next Hop SNPA
4700040034A00F08002001635400	A00F	080020016354

FOREIGN VENDOR 1:

The foreign vendor must configure the presentation address of the NOS/VE FTAM responder and the next hop MAC address of the CDCNET communication device. The NSAP address portion of the NOS/VE FTAM responder's presentation address is comprised of the following pieces of information:

address prefix	subnet ID	system identifier	n-selector

address prefix: Value equal to the address prefix specified on the CHANGE_CDCNET_ADDRESS_PREFIX (if specified). Otherwise equal to the default CDCNET NSAP address prefix as documented in the CDCNET Configuration Guide (60461550).

subnet ID: Value equal to the network_identifier parameter on the DEFINE_VE_INTERFACE command.

system identifier: Value equal to that shown by the DISPLAY_NAM_ATTRIBUTES command (see above).

n-selector: Value always equal to 01.

In this example, the FTAM/VE responder's presentation address would be (in hexadecimal):

NSAP address: 47000400340301080025C4807901 (If the CHACAP command was necessary.)
39840F01BB7B000000000000301080025C4807901 (If the CHACAP command was not necessary.)
TSAP selector: 0001 (always 2 bytes for a FTAM/VE responder)
SSAP selector: 01
PSAP selector: 01

The value for the next hop MAC address would be:

0800253000ab

The application entity title for the NOS/VE FTAM responder will always be:

(1 3 9999 1 7)

At this point it will be possible to communicate between the FTAM implementations running on the CYBER mainframe and FOREIGN VENDOR 1.

Case 2:

The second case is more involved than the first case. The goal is to establish communication between a NOS/VE host and a foreign vendor on a remote LAN. In this case, there are three CDCNET communication devices between the NOS/VE host and the foreign vendor. For this example, the OSINET style of addressing will be used for all communication devices.

To set up the configuration detailed above, changes must be made to the NOS/VE host, the channel-connected MDI (or ICA), to NDI_A, to NDI_B, and to FOREIGN VENDOR 2. The relevant software commands are explained below.

CYBER Mainframe:

As in case 1, the following commands must be entered to add the addresses of foreign vendors into the local directory and to initiate the NOS/VE FTAM responder.

In this case, the title and address for FOREIGN VENDOR 2 is added into the local directory.

```
ADD_OSI_ADDRESS TITLE=DIGITAL ..
  NETWORK_ADDRESS='47000400340201AA0004002A1201' ..
  TRANSPORT_SELECTOR='4141' ..
  SESSION_SELECTOR='01' ..
  PRESENTATION_SELECTION='6674616D'
```

Again, the NOS/VE FTAM responder system job needs to be initiated with the following command:

```
ACTIVATE_FTAM_RESPONDER TITLE='CYBER_FTAM' ..
  TRANSPORT_SELECTOR=1
```

The following command is used to determine the system identifier for the NOS/VE host:

```
DISPLAY_NAM_ATTRIBUTES DISPLAY_OPTION=SYSTEM_IDENTIFIER
```

MDI_A:

As before, in the configuration file for MDI_A, it is necessary to statically configure the next system that is to receive the data. The ADDRESS_PREFIX is the NSAP address of the destination, and the NEXT_HOP information details the network id of the intermediate system that is to receive the data (which is in this case NDI_A). Note that the subnet ID of the ADDRESS_PREFIX changed from A00F(16) to 0201(16) - the subnet ID of LAN B.

```
ADD_NON_CDCNET_ADDRESS_PREFIX ..
  ADDRESS_PREFIX='47000400340201AA0004002A1200' ..
  NEXT_HOP=((0A00F(16), '080025300557'))
```

The DEFINE_VE_INTERFACE command is the same as detailed earlier.

```
DEFINE_VE_INTERFACE NETWORK_IDENTIFIER=3
```

Similarly, the CHANGE_CDCNET_ADDRESS_PREFIX command is the same as in Case 1.

```
CHANGE_CDCNET_ADDRESS_PREFIX ADDRESS_PREFIX='4700040034' ..
  ADDRESS_SIZE=14
```

If the previous commands have all been entered correctly, and assuming we retained the ADD_NON_CDCNET_ADDRESS_PREFIX command shown in Case 1, the following NETOU command will look as such:

```
nou/SENC 'DISPLAY_NON_CDCNET_ADDRESS_PREFIX' MDI_A
```

FROM MDI_A NonCDCNET NSAP ADDRESS PREFIXES

NonCDCNET NSAP address prefix	Subnet ID	Next Hop SNPA
47000400340201AA0004002A1200	A00F	080025300557
4700040034A00F08002001635400	A00F	080020016354

It is critical to understand the information presented in this section. Please ensure that all is clear before proceeding.

NDI_A:

In the configuration file for NDI_A:

```
ADD_NON_CDCNET_ADDRESS_PREFIX ..
  ADDRESS_PREFIX='47000400340201AA0004002A1200' ..
  NEXT_HOP=((0123(16), '0800253000B3'))

CHANGE_CDCNET_ADDRESS_PREFIX ADDRESS_PREFIX='4700040034' ..
  ADDRESS_SIZE=14

nou/SENC 'DISNCAP' NDI_A
```

FROM NDI_A NonCDCNET NSAP ADDRESS PREFIXES

NonCDCNET NSAP address prefix	Subnet ID	Next Hop SNPA
47000400340201AA0004002A1200	0123	0800253000B3

NDI_B:

In the configuration file for NDI_B:

```
ADD_NON_CDCNET_ADDRESS_PREFIX ..
  ADDRESS_PREFIX='47000400340201AA0004002A1200' ..
  NEXT_HOP=((0201(16), 'AA0004002A12'))

CHANGE_CDCNET_ADDRESS_PREFIX ADDRESS_PREFIX='4700040034' ..
  ADDRESS_SIZE=14

nou/SENC 'DISNCAP' NDI_B
```

FROM NDI_B NonCDCNET NSAP ADDRESS PREFIXES

NonCDCNET NSAP address prefix	Subnet ID	Next Hop SNPA
47000400340201AA0004002A1200	0201	AA0004002A12

NDI_B could be configured using the CDCNET command ADD_NON_CDCNET_ROUTING_ENTRY rather than the ADD_NON_CDCNET_ADDRESS_PREFIX command. Refer to section 4 of the CDCNET Configuration guide (60461550) for more information regarding the use of this command for multi-vendor configurations.

FOREIGN VENDOR 2:

The foreign vendor must configure the presentation address of the NOS/VE FTAM responder and the next hop MAC address. In this example, the value for the presentation address would be:

```
NSAP address: 47000400340003080025c4807901
TSAP selector: 0001  (always 2 bytes for a FTAM/VE responder)
SSAP selector: 01
PSAP selector: 01
```

The value for the next hop MAC address would be:

0800253000b3

NOTE

The next hop MAC address is NOT the same as that specified in the destination NSAP address. The next hop MAC address is that communication device located on LAN B, whereas the destination NSAP address is that of the FTAM/VE responder. Also, the application entity title for the NOS/VE FTAM responder will always be:

(1 3 9999 1 7)

Appendix B
Product Table

Listed below are the NOS/VE 1.7.1 L803 products which are installed using the INSTALL_SOFTWARE (INSS) utility. This list includes individual products which can be ordered from Control Data. These names represent licensed product names which are identified in the packing list. This list does not include the separately licensed software packages which are combinations of these individual products. Following this list is a list of subproducts that make up the NOS/VE operating system product.

The list below indicates the approximate sizes of the current release and the percent change in size from the previous release.

Product Name	Size in Bytes
ACCOUNTING_ANALYSIS_SYSTEM	200756
ACCOUNTING_UTILITIES	597778
ADA	9970418
APL	871108
ARCHIVE_VE	6598119
ARCHIVE_VE_NOS_7990	678150
ASSEMBLER_VE	458963
AUDIT	52480
BASIC	1208952
BISYNC_3270_TIP	40960
CARTRIDGE_STORAGE_SYSTEM	709326
CARTRIDGE_SYSTEM_VE_5744	223137
COBOL	2076710
CV2	10342924
CYBIL	12876709
CYBILIR	2740511
DATA_ENCRYPTION	94951
FILE_SERVER	79309
FORTRAN_VERSION_1	2138753
FORTRAN_VERSION_2	12330607
FTAM	1861731

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Product Name	Size in Bytes
GRAPHICS_PERFORMANCE_MONITOR	26688
HIGH_SPEED_HDLC	24576
IM_CONTROL	4060460
IM_FAST	1512079
IM_QUICK	1212607
IM_SMART	14371523
LANGUAGE_SERVICES	135337
LISP	28069772
MODE4_TIP	40960
NETWORK_ARCHIVING	1621523
NETWORK_TRANSFER_FACILITY	653602
NETWORK_VALIDATION	174195
NFS	1442737
NIS	2059986
NLM	422333
NOS_VE	268741443
NQS	1952472
PASCAL	1191005
PPE	3115074
PROGRAMMING_ENVIRONMENT	831047
PROLOG	256298
PTF_QTF	528830
REMOTE_HOST_FACILITY	405481
REMOTE_LINE_MONITOR	191666
RMS	1363241
SDF	2233649
SERVICE_ACCESS_CONTROL	16384
SNAP	115916
TCP_IP	56614920
TERMINAL_PASSTHROUGH	24576
TPO_CONS	40960
X25_TERMINAL_GATEWAY	81920

(Continued on next page)

Product Name	Size in Bytes
X29_PAD_SERVER	49152
X_WINDOWS	24735844
XTF	1204685

The following list contains an expanded list of the subproducts that make up the NOS/VE product. These subproducts cannot be ordered separately, but are automatically included when you order NOS/VE.

Product Name	Size in Bytes
AAM	2903938
AFTERBURNER	411276
APPLICATIONS_INSTALL_TOOLS	383151
BUILD_UTILITY	689412
CDCNET	13597658
CDCNET_NETCU	6340894
CML	1336373
CYBIL_RUNTIME_LIBRARY	100368
DEBUG	874611
DESKTOP_VE	7093663
DVS	3933206
EDIT_CATALOG	228179
FILE_MANAGER	237568
FMA	2093781
FMU	367329
FORMAT_CYBIL_SOURCE	187601
FORTRAN_RUNTIME_LIBRARY	513010
FORTRAN_V2_RUNTIME_LIBRARY	6727770
HELP	410692
HPA	4190706
INSTALLATION_TOOLS	2079182
KERMIT	108646
LIB99	1530844
LINE_PRINTER_MANUALS	3082876
MAILVE_VERSION_2	7979114
MALET	19205714
MATH_LIBRARY	1685494
MENU_VE	1165674
NOSVE_FILES	16926089
NOSVE_INITIAL_LOAD	17667784
NOSVE_MAINTENANCE	23388988
ONLINE_MANUALS	45126990
ONLINE_MANUALS_SOURCE	64242175
OPTICAL_DISK	1382816
PFTF	300987
PPM	1676232
PRE_INSTALL_SW	2226596
SCU	2196074
SORT	345235
SVS	916432
TDU	2801160
XMODEM	85155

Appendix C
Configuration Management

Before installing the NOS/VE 1.7.1 L803 software system, ask the Engineering Services representative at your site to confirm that all equipment is at the required FCO levels. In particular, ensure that the mainframe is at the appropriate index level shown in the tables that follow. This means that all FCOs listed on the mainframe Field Change Announcement (FCA) at lower index levels should be installed plus any FCOs necessary to bring the mainframe to the required index level. (The mainframe FCA is similar to the system FCAs accompanying this release, but it is provided directly to Control Data field service personnel.)

Additional configuration management data is contained on the System Field Change Announcements accompanying this release. There is one announcement for each CYBER series mainframe model with a guide to understanding the data printed on the reverse side. These System Field Change Announcements are updated with each subsequent release of system software.

Also included with this release is a summary of applications available under NOS/VE. These are grouped by NOS/VE release levels. As new software availability bulletins are released for applications, the Field Availability Summary (FAS) of applications under NOS/VE is updated and mailed with the applications software availability bulletin.

Certified Components and Levels

The following components are certified at the indicated levels:

Mainframe Model	Mainframe Index	NOS Level	NOS/BE Level	NOS/VE Level	CML Level	CIP Level
CY180-810/810A	7	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY170-815	10	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY170-825	11	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-830/830A	7	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY170-835	11	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-840/840A	8	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY170-845	11	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-850/850A	8	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY170-855	14	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-860/860A	8	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-865	1	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-870A	8	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-875	1	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY180-930-11	7	----------	--------	1.7.1 L803	----	L803
CY180-930-31	7	----------	--------	1.7.1 L803	----	L803

Certified Components and Levels (cont'd)

Mainframe Model	Mainframe Index	NOS Level	NOS/BE Level	NOS/VE Level	CML Level	CIP Level
CY900-932-11	3	----------	--------	1.7.1 L803	----	L803
CY900-932-31	3	----------	--------	1.7.1 L803	----	L803
CY900-932-32	3	----------	--------	1.7.1 L803	----	L803
CY900-960-11	3	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY900-960-31	3	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY900-960-32	3	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY900-962-11	2	----------	--------	1.7.1 L803	----	L803
CY900-962-31	2	----------	--------	1.7.1 L803	----	L803
CY900-962-32	2	----------	--------	1.7.1 L803	----	L803
CY180-990/990E	16	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY900-992-31	2	----------	--------	1.7.1 L803	----	L803
CY900-992-32	2	----------	--------	1.7.1 L803	----	L803
CY900-994-31	3	2.8.1 L803	--------	1.7.1 L803	L803	L803
CY900-994-32	3	2.8.1 L803	--------	1.7.1 L803	L803	L803
CY180-995E	16	2.8.1 L803	1.5 L744	1.7.1 L803	L803	L803
CY2000S	1	----------	--------	1.7.1 L803	L803	L803
CY2000V	1	----------	--------	1.7.1 L803	L803	L803

Appendix D
Support Information

The information in this appendix applies to system software, that is, the operating system and the product set including compilers and data management products. Prior to this release, this support information was in the Software Availability Bulletin for NOS/VE.

Critical Support

A critical problem is defined as follows:

> Frequent or lengthy service interruptions or key applications are not functioning. No known work-around exists.

You must report the problem via a Programming System Report (PSR) and provide justification for the critical status. For a specified period of time after the release of a software product, Control Data provides critical support. This means that Control Data must either provide a correction to the product or a satisfactory work-around for the problem.

Standalone Critical Support

In the standalone environment, critical support is provided for releases of NOS/VE until the dates shown in the following table:

NOS/VE Version	NOS/VE Level	Critical Support End Date
1.6.1	780	January 1993
1.7.1	803	October 1993

Dual State Critical Support

In the dual state environment, critical support is provided for releases of NOS/VE and its dual state partner until the dates shown in the following table:

Supported Dual State Partners

NOS/VE Release		CDCNET Level (NAM/VE)	Dual State Partner		Critical Support End Date
Version	Level		Version	Level	
1.6.1	780	780	NOS/BE 1.5	682/712/744	Jan 1993
1.6.1	780	780	NOS 2.7.1	750	Jan 1993
1.6.1	780	780	NOS 2.7.2	774	Jan 1993
1.6.1	780	780	NOS 2.7.3	780	Jan 1993
1.6.1	780	780	NOS 2.7.4	797	Jan 1993
1.7.1	803	803	NOS/BE 1.5	682/712/744	Oct 1993
1.7.1	803	803	NOS 2.7.3	780	Oct 1993
1.7.1	803	803	NOS 2.7.4	797	Oct 1993
1.7.1	803	803	NOS 2.8.1	803	Oct 1993

Support for CDCNET is available through NAM/VE for standalone or dual state environments. CDCNET is also available through the indicated NOS dual state partner.

Noncritical Support

Urgent, serious, and minor PSRs will continue to be processed in the context of the latest released software system and/or in the next release.

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